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## ABSTRACT

A study of various forms of credit or non-credit used in Florida colleges and universities examines their relationship to traditional college credit, courses, and programs. An expansion in the kinds of credit and their usage is a focus of concern of Florida's Statewide Course Numbering System (SCNS). The practices of Florida postsecondary institutions as they created all forms of credit are reported, and the results of a search for the formal authority and constraints on the uses of the different kinds of credit are outlined. The creation and maintenance of a reliable statewide inventory of courses at the 37 state-supported two- and four-year colleges has raised a number of large and small issues, including the integrity of data collection, inconsistencies in catalog listings, general education patterns, authority and potential changes, developmental-remedial courses, and conversion of occupational courses to the SCNS classification system. Appendices contain a variety of documents from the SCNS and its study, and charts of program and award data from Florida's 28 community colleges. (MSE)

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# SURROGATE LEARNING MEASURES:

# CREDIT, OTHER UNITS
# AND NON-CREDIT

John S. Waggaman

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Statewide Course Numbering System
Department of Education
Collins Building, Suite 108
Tallahassee, Florida 32301

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JSW

# SURROGATE LEARNING MEASURES: CREDIT, OTHER UNITS, AND NON-CREDIT*

## I. Introduction

The central concern of this paper is the existence of various forms of credit and non-credit and their relation to traditional college credit, courses, and programs. There appears to be an expansion in the kinds of credit and their usage; the problems resulting from this fact have been vexing the staff and faculty committees of the Statewide Course Numbering System (SCNS) for several years now.**

The paper reports the practices of Florida postsecondary institutions as they created all forms of credit; it presents the results of a search for the formal authority and constraints on the uses of these different kinds of credit units; and it attempts to provide some clarification of the large and small issues which are important in the creation and maintenance of a reliable statewide inventory of classified courses listed at the 37 public community colleges and universities in Florida. The research for this paper permitted an investigation of several other issues of consequence for the integrity of the data in the course inventory of SCNS, e.g., incorrect catalog listings of courses; general education patterns, authority and potential changes; developmental-remedial secondary-level courses; important issues related to the conversion of occupational courses to the SCNS classification system; and other similar matters.

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*Prepared by John S. Waggaman, Research Consultant to the Statewide Course Numbering System and Associate Professor of Higher Education, The Florida State University. (9/80)

**See Appendix A for SCNS documents about these and other related problems.

The study involved an examination of Florida college catalogs, 1979-80 and/or 1980-81; a search of the Florida Statutes, Florida Administrative Code and selected federal statutes and regulations; and, a search and retrieval of various and sundry federal, out-of-state, accreditation, and professional association documents. In addition, a few state and institutional officials were sought out who very helpfully shared a variety of useful information.

The second section of the paper gives an overview of the context and problems concerning credit. The third section reviews relevant national guidelines about transfer of credit, and the fourth one examines the applicable standards and interpretations of the Southern Association of Colleges and Schools. The fifth section brings together the definitions and concepts of credit, courses and programs, and reports on some policies and practices in other states. Section six examines the Florida experience: past, current, and probable future. Section seven summarizes the findings, presents conclusions and makes specific policy recommendations.

Two characteristics of style in the paper should be noted. First, the results of the study of catalogs, particularly the community college catalogs, are not reported or identified by institution; such information is available at SCNS. Identities are not detailed here because this is a state-level policy background paper and not an evaluation of individual institutions. The simple fact is that there are no official state rules which direct the institutions to do anything about credit or related course numbering practices different from what they are now doing.

Second, all footnotes refer to the numbered references at the end of the paper. Page numbers, when appropriate, appear following a comma after the reference number; a second or third reference each follows a semi-colon.

## II. Credit for Learning

One of the oldest distinctions among courses resulted in a dichotomy between credit and non-credit courses. At one time all remedial work was classified as non-credit; the term "bone head" English was used a generation ago to describe "make-up" or remedial English courses. Other kinds of courses, for example, those with little theoretical content and focused on current issues, were not only denied credit, but were not even given the dignity of a course number. Very old-time professors like to tell how they made relevant their subject speciality over the dinner table with a few students in attendance, but not for grade or credit.

To say that things have changed is to massively understate current credit usage. One of Florida's public universities offers a series of credit courses which, although providing students with exploratory inter- or multi-disciplinary subject matter, sound like non-credit adult education community instructional service offerings.* Another Florida university has, through its student government association, organized a large set of "leisure" courses, many with faculty instructors teaching their most current research results or reporting on recent international field trips--all non-credit. These very different approaches to what constitutes a credit course represent the enormous divergence which has emerged among higher education institutions. Such experiences are certainly not unique to Florida.

The information in Table 1, from official Florida sources, indicates the increasing variety of means by which learning is assessed and for which credit is awarded.[8;10;20.] The list is probably incomplete because new means of assessment are emerging almost weekly. The items in the table come from state system official rules and documents, but do not include the unique assessment efforts of each university and community college.

Several higher education authorities have suggested over the years that other learning strategies need to be

---

*This university has purged its curriculum and catalog listings by removing "The Monster and the Movies," "Dues, Blues and Langston Hughes," and others such as "A History of Baseball"; all were legitimate credit courses at one time.

## TABLE 1

### Kinds of Credit Which Can Be Earned In Addition To Regular Academic Credit (if certain qualifications are met)*

1. Dual enrollment credits in college-level academic courses completed by a high school student at an accredited collegiate institution prior to completion of high school;[a]

2. Credit equivalents for the secondary advanced placement programs of CEEB;[a]

3. Credit equivalents for passage of the College Level Examination Program tests;[a]

4. Credit for passage of an exemption or waiver examination;[b]

5. Credits for appropriately recognized standardized institutional or departmental examinations, including USST subject tests;[b]

6. Credit from United States armed forces institute (USAFI);[b]

7. Credit from off-campus program courses, except for DIS's;[c]

8. Undergraduate credit for courses taken at an institution participating in the program of interinstitutional transient registration;[c]

9. Academic credit for cooperative (i.e., work-study) education experiences;[c]

10. Admission to upper division by students transferring from a community college is based on several factors including 60 semester hours of academic work "exclusive of occupational courses and basic required physical education."[c]

---

*Note: no special mentions are made here about credit awarded for correspondence study, military experience or life experience; however, the first two are accepted by most universities and the Florida Articulation Coordinating Committees is working on credit guidelines for the last one.

[a] Mentioned for both community colleges and universities.

[b] Mentioned for community college only.

[c] Mentioned for universities only.

TABLE 1--Continued

11. "acceptance of course credits for transfers from such degree or certificate programs [different from the associate of arts, which is the basic transfer degree of Florida community colleges] will be evaluated by the senior level institution on the basis of applicability of the course to the baccalaureate program in the major field of the student."[c]

12. Credit earned from an external degree program;[c]

13. Graduate credit for courses taken at an institution participating in the traveling scholars programs;[c]

14. Both credit and non-credit courses may be offered through continuing education;[c]

15. Employed public school teachers may participate through community colleges in the programs at teacher education centers;[b]

16. Non-credit discussion groups permitted under certain conditions;[c]

17. Community college system of classifying courses and programs for funding purposes:

    (1) Advanced and professional - Advanced and professional includes all courses for which credit is awarded in fields of study or disciplines designed primarily for programs of study leading to a baccalaureate degree and all courses supportive of study in these disciplines.

    (2) Occupational - Occupational includes all vocational/technical college credit and non-credit courses designed primarily for programs of study leading to an associate of science degree, a certificate or an award, including courses for upgrading and retraining designed for immediate employment. Also included are courses in agricultural, distributive, health, home economics, industrial, office/business, and technical education.

    (3) Developmental - Developmental includes all courses in compensatory programs for all fields of study designed to meet the needs of the educationally disavantaged student including remedial, functional, literacy and high school completion courses. Compensatory education programs shall consist of a group of interdependent activities and special types of educational experiences designed to meet the specific academic and personal

TABLE 1--Continued

needs of educationally disadvantaged students whose need for such programs of special instruction results from poverty, neglect, delinquency, curriculum deficiences, cultural attitudes, or cultural or linguistic insulation from the community at large. A compensatory education program must include attention to subject matter remediation, development of competencies, and change of attitudes. It is addressed to increasing the likelihood of success at the entry level of any certificate or degree program of the college.

(4) Community instructional services-Community instructional services includes organized non-credit instructional activities conducted within guidelines adopted by the State Board of Education. 6A-14.761.

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SOURCE: Florida Statutes and Florida Administrative Code, in compilations through 1979, plus other, more current rules. These and the entire results of the search of official sources are summarized in Appendix C.

developed and used to replace the old credit and degree systems. Competency-based learning has often been suggested as such a means. Closer inspection of it, though, indicates that it is both part of an instructional strategy and a special assessment procedure; for example, individualized instruction may be part of a course of competency-based program of studies which uses performance objectives. Competency-based assessment would appear to be more related to certification, e.g., for completion of a set of program requirements rather than for assessing the results of a single course. In any event, it appears that competency-based programs will have their results awarded regular credit for a variety of purposes, including facilitation of inter-institutional transfer of students. Levine discusses this and a variety of matters about credit and degrees; of particular interest is his summary of the pros and cons of credit as compiled by Barbara Burn.[21,165-167] After considering the strengths and weaknesses of credit with neither side an obvious winner, Levine discusses colleges which have developed innovative programs or total curricula to offset the negative consequences of the credit system; New College of the University of South Florida is included as an example.

Item 17 in Table 1 was included because it defines credit and non-credit and does so in a very different way than for other educational programs or courses. It should be noted that no special recognition was given to institutional credit or any other irregular forms of credit; this omission does not mean that usage or recognition of other credit forms in different state or institutional documents should not exist. The varieties of occupational credit turned out to be one of the most confusing and complex issues addressed in this study; understanding them requires some information about completion awards, kinds of programs and legislative history.

In a 1973 study of accredited two-year colleges in the South, published by the Southern Association of Colleges and Schools, the authors asserted that all college curricula fell into one of four categories:

- degree programs designed for transfer to senior institutions;
- degree programs in vocational-technical education;
- non-degree programs in vocational-technical education; and
- non-credit programs in adult and continuing education.[7,25-27].

The first set of curricula were described as the typical lower division transfer liberal arts programs. The programs in the second group were labeled semi-professional and technical. They had the standard description of curricula for preparation of students for immediate employment; however, the report also stated that some of the programs also prepared students for transfer to specialized programs at four-year institutions. The third group of programs were those for training students in skilled and semi-skilled occupations. The fourth group included programs for adults who wanted to improve or extend their knowledge, or wanted skills in vocational or avocational areas. The 1973 date of the report explains in large part the absence of the term "postsecondary" in the descriptions for groups two or three. The most current and still progressing change today from this quartet is the removal of occupational updating courses from group four. The 1973 report understated the actual expansion in the number of occupational programs and enrollments. These developments represent the dynamics of change just during the 1970's.

The concept of the technician as someone who has completed rigorous college-level study, or its equivalent, in an occupational field is gaining in importance. Whenever "college-level" is used to describe an occupational program the terms can be decoded to mean that the courses in the program will almost always (today) be assigned some form of college credit. The definition of technical programs as those being two years in length, but less than four, apparently is a common concept. In the 1979 Occupational Education volume of the College Blue Book, its introduction contains descriptive information of a contradictory nature, but only so if a reader assumes that only one educational program model exists for the education of technicians.[27,ix.] The editors subscribe to the two-year college plan, but point out that some technical training programs may begin in the 11th or 12th grade, although most programs are said to be post-high school in character. They assert that trade and technical schools almost always offer post-high school programs.

The definitions the editors use for their completion awards indicate varying lengths for programs, which raises questions about the character and credit awards for the 850 technical curricula listed for the more than 8000 business, trade and technical schools.

> As used herein, a certificate refers to a formal award for the successful completion of a program of less than one year in length. A diploma refers to a program of one year or more but less

> than two years in length. The Associate degree refers to the two-year programs, generally found at junior and community colleges.[27,x.]

Clearly this guidebook covers both technical and skill programs, even though it does not so state. Incidentally, this is not a unique definition for diploma, which term is almost never used for occupational program completions by Florida's community college officials; it is used this way at a public Area Vocational-Technical Center which is a part of a Florida public school district. In many ways the preceding description summarizes the confusing mixture of occupational education arrangements in the United States and Florida at this time.

Most discussions of credit usually refer to the credit awarded. Any review of the credit available from examinations, courses completed successfully and so on, implicitly refers to the credit assigned to these learning activities. The means by which credit is assigned to a learning experience before the credit is ever awarded is either an informal or a very formal process. A description of the latter may be found in the 1979 National Guide to Credit Recommendations for Non-Collegiate Courses, by the American Council on Education.[26] In almost all ways the text material and Appendix B of the Guide provide the ultimate model for rationally assigning credit to any educational experience, not just non-collegiate courses. This publication's recommendations should be very helpful to the persons involved in converting courses from one calendar to another or from one credit unit system, e.g., clock hours, to another.[17] Following are some of the Guide's recommendations which are relevant to problems of concern in this study.

> 1.a. The material presented in each [technical] course must be on the postsecondary level.
>
> d. The course should serve people who can use the credit recommendations toward a postsecondary credential.
>
> e. . . . Correspondence and independent study courses must include a proctored examination administered under secure conditions.
>
> f. Courses conducted over an extended period of time should normally contain at least 30 hours of instruction.
>
> g. Intensive courses should normally contain at least 35-40 hours of instruction (5 days).
>
> h. Intensive technical courses involving laboratory or workshop exercises should normally be at least 70-80 hours of instruction (10 days).
>
> i. Individual courses that do not meet the above time requirements may be grouped together for purposes of review.
>
> 9.c. Duration and concentration of effort in relationship to the generally accepted practice for determining credit in postsecondary institutions. Normally, academic credit is assigned on the basis of one semester credit hour for each 15 classroom contact hours plus 30 hours of outside preparation or equivalent; one semester credit hour for each 30 hours of laboratory work plus necessary outside preparation or equivalent; one semester credit for not less than 45 hours of shop instruction (contact hours or equivalent).
> . . .

> If appropriate, a single-credit recommendation is established for [a] group of courses and it applies only when a student has completed all of them.
>
> Reasons given for failure to recommend credit have included: (1) the course is too limited in scope or too narrowly focused to be comparable to college programs; (2) the material presented in the course is not comparable to courses offered by colleges and universities;...
>
> 10. Credit recommendations will be reported in the following categories:
>
> 1. Vocational Certificate: This category describes course work of the type normally found in nondegree (certificate) programs, which are usually a year or less in length and designed to provide students with occupational skills. They can also be found in some curricula leading to associate degrees in applied science [AAS]. Course content is specialized and the accompanying shop, laboratory, or similar practical components emphasize procedural more than analytical skills.
>
> 2. Lower Division Baccalaureate/Associate Degree: This category describes course work of the type normally found in the first two years of baccalaureate program and in programs leading to the Associate in Arts, Associate in Science, or the Associate in Applied Science degree. The instruction stresses development of analytical abilities at the introductory level. Verbal, mathematical, and scientific concepts associated with an academic discipline are introduced, as are basic principles. Occupationally oriented courses in this category are normally designed to prepare a student to function as a technician in a particular field. . . .[26,xi-xix,193-195]
> [Underlined emphasis added.]

The above guidelines, and the portions not quoted, can be helpful in comprehending the emerging issues about occupational credit. It should be noted that ACE is recommending a standard formula for calculating whatever form of credit is assigned, but that thoughtful examination of course syllabusses, textbooks, examinations, and so on must be the heart of course evaluations. The system of Virginia Community Colleges has assigned all of its courses a uniform course number and used one form of credit for all technical and what appear to be skill-level courses. Thus, there is at least one state which has confronted the problems of credit rationally.

In the next section other national guidelines are examined which will focus on transfer of credit.

## III. National Guidelines For Transfer of Credit

In the United States in recent years a number of reports have been published about credit for military service, for employment and training, and for other experiences; included in them are inventories of local institutional practices about accepting or awarding credit. Some of these publications make recommendations to institutions about the amount of credit which can be legitimately assigned to these various learning or living experiences. [13;26;34;39].

One of the first sets of national guidelines about transfer of credit was published in early 1978 by the Council on Postsecondary Accreditation (COPA), a national coordinating group for all regional, professional, and technical accrediting associations. The evaluation and assignment of credit for non-traditional learning like that mentioned above results in credit which is very difficult to transfer; the transfer of regular course work is still a problem because of program requirements at the receiving institution and so on. [29]. The COPA statement appeared as an end paper to a voluminous list of institutions accredited in the United States. The guidelines stated that:

> Transfer of credit from one institution to another involves at least three considerations:
>
> ° The educational quality of the work transferred.
>
> ° The comparability of the courses previously taken to those offered by the receiving institution.

- The educational and occupational goals of the student.

> Accreditation speaks only to the first of these considerations. It indicates that the institution or program has met certain requirements that represent minimum standards of educational quality.
>
> One accredited institution, therefore, should be willing to consider for transfer purposes the credits from another accredited institution, and then should apply its own judgement as to the comparability of the courses and their appropriateness to the student's declared educational and occupational goals. No accredited institution should refuse to consider transfer credits from another accredited institution simply because of the type of accreditation.
>
> As enrollments of 18-22-year-old students start to decline, beginning about 1980, it is expected that traditional colleges and universities increasingly will recruit students from different kinds of institutions. They should begin now to reevaluate their policies and practices with regard to transfer of credits. (The foregoing statement is not a policy document, either of COPA or the American Council on Education [ACE]. It is presented solely for information and guidance to all interested parties.) 5,336.

The above statement presents a set of noble and desirable goals. It also provides a structure in which can be placed the goals of the Statewide Course Numbering System, the actions of the Articulation Coordinating Committee, the bilateral articulation agreements between any two-year college and a university, and the voluntary arrangements for regional consortia of community colleges and universities. All of these Florida organizations relate in whole or in part to the problems of transferring credit for comparable courses between accredited two-year and four-year institutions.

Further evidence of the need for these intermediate agencies--between accrediting association and postsecondary academic institutions--is contained in the 1977 report, Statewide Articulation Agreements, by the American Association of Collegiate Registrars and Admissions Officers (AACRAO).[37.] In its survey of all 50 states in the summer of 1976, the Association received no reply from three states; respondents in 10 states indicated no formal articulation agreements were in existence.

> Each of the remaining 37 states reported some type of articulation activity--nearly all are statewide in scope. They provided written materials that ranged from one-page documents to multi-page booklets and manuals describing extensive programs. Members of the [AACRAO] subcommittee have carefully reviewed each response and have produced a one-page "fact-sheet" for inclusion in this publication. Because of the volume of data provided by many states, it was necessary to summarize and condense much information. . .[37,1-2.]

These one-page state "fact sheets" indicated an enormous diversity of transfer-for-credit policies. They also indicated that the States of Arizona, Florida, Hawaii, Nevada and Virginia had course equivalency systems of some kind, all at the lower division level; Florida's system, of course, includes the upper division. Florida and Virginia are apparently the only states with common numbering systems. Many of the other states encouraged course-by-course evaluation by the receiving institution. Only one state, Montana, said its institutions would accept all credits at face value on the transcript of a Montana student coming from an accredited

Montana college or university. Most states are probably like South Carolina where acceptability of transfer credit ranges from none to all among its various postsecondary institutions.[29]

A revised version of the earlier COPA statement on transfer of credit may be found in the 1979 edition of Transfer Credit Practices of Selected Educational Institutions, published by the American Association of Collegiate Registrars and Admissions Officers.[38] This version, now three pages, was agreed to by COPA, AACRAO and ACE in 1978; it is titled "Transfer and Award of Academic Credit." The importance and impact of non-formal as well as formal education is emphasized throughout; the importance of helping all kinds of students meet their educational goals and objectives is also emphasized.

The new trinity, based on the COPA one quoted earlier, states:

> Transfer credit from one institution to another involves at least three considerations:
>
> (1) the educational quality of the institution from which the student transfers;
>
> (2) the comparability of the nature, content, and level of credit earned to that offered by the receiving institution; and
>
> (3) the appropriateness and applicability of the credit earned to the programs offered by the receiving institution, in light of the student's educational goals.[38,121]

In comparison with the COPA statement, item (1) shifts attention from the students' work being transferred, for which grades would be available, to the quality of the institution. As this publication stated earlier: "Accreditation indicates that the institution or program has met certain requirements that represent minimum standards of educational quality." [38,iv.] The emphasis in the entire text is on the fact of minimum quality. The reason for this emphasis is that "Acceptance of credit ... usually refers to a process of evaluating a transcript submitted by another institution for a student who has completed work at that institution." Thus, the first item was changed to emphasize the overall quality of an institution, not just some specific activities of it. However, accreditation extends not just to the institution through regional bodies, but to some programs through appropriate professional associations; of course, all must be recognized by COPA.

There is no hint that an unaccredited institution or program is of poor quality; nor is there the faintest suggestion about what might constitute a higher than minimum quality institution or program. It is explained that lack of accreditation may have nothing to do with quality. Also, for example, applicants from foreign institutions or others with credit from extra-institutional settings require special evaluations; sources for these evaluations are identified. As the statement suggests, under the American system of autonomous and diverse institutions of higher education, this matter is left to the judgement of the transcript evaluation clerk, admissions administrator or faculty member from an appropriate program.

The new second item omits reference to a course, substitutes credit for course, and stipulates that comparability should be determined by examining the nature, content, and level of credit earned. These three characteristics of the credit earned are to be compared between the sending and receiving institutions. The terms "content" and "level" may be more commonly interpreted, but the "nature" of a credit earned has an eighteenth-century ambiguousness about it that knows no bounds. It seems readymade as a policy guideline to be interpreted permissively for the most generous *or* archaic and prejudiced judgement about a "meaningful learning experience." The interpretation in the statement of item two makes a suggestion to avoid, apparently, these very difficulties: "Since accreditation does not address these questions [nature, content and level], this information must be obtained from catalogs and other materials *and from direct contact between knowledgeable and experienced faculty and staff at both the receiving and sending institutions* [emphasis added]."[38] This is a major change and improvement over the old transfer statement; implementing it could be a sizable undertaking. The change also introduces a new structural component in the transfer evaluation process which should sound familiar to educators in Florida.

Perhpas the Florida experience is miles ahead here:

the decision by faculty discipline task forces (through the Statewide Course Numbering System) about what courses are comparable permits a judgement by the most knowledgeable persons in the field. Also, the procedures developed for equating other kinds of evidence of learning with credit award decisions by the Florida Articulation Coordinating Committee, while leaving their application to institutional officials, seems to work very well.[8] However, neither group has been able to resolve the difficult issues about transferability of occupational credit, especially since Florida's official rules prohibit transfer of all occupational courses to the universities.

The third item, like number one, shifts the focus back to the institution; it adds the point that a student's education goals and the credit earned should be considered in relation to the programs of the receiving institutions. This stipulation appears in the official rules of the State University System and in some university catalogs. One can easily imagine that as the pressure grows for admitting any applicant just to keep up FTE student funding, the very educational mission of an institution could be challenged by admitting too many students with inappropriate educational goals or preparation. The most significant point in the interpretive statement about this item is not evident from a reading of it.

> At some institutions there may be differences between the acceptance of credit for admission purposes and the applicability of credit for degree purposes. A receiving institution may

> *accept* previous work, place a *credit* value on it, and *enter* it on the transcript. However, the previous work, because of its *nature* [?] and not its inherent quality, *may be* determined to have *no* applicability to a specific degree to be pursued by the student.
>
> Institutions have a responsibility to make this distinction, and its implications, *clear* to students before they decide to enroll. This should be a matter of full disclosure, with the best interests of the student in mind . . .[Emphasis added.] [38,122].

In Florida, a "mild" form of this problem results when a student takes too many courses in a particular discipline at a community college, then finds that only one of them will apply to a major; that most of the others will count only as electives; and that only one or two are found acceptable as part of the general education requirement for an A.A. degree.

In summary, the 1979 joint statement by AACRAO, ACE and COPA substantially changed the older one as:

(1) AACRAO's realism tempered COPA's idealism;

(2) ACE's and AACRAO's focus on institutions shifted COPA's attention from students back to its primary clientele group, the institutions;

(3) Recognition was given to the need for inter-institutional actions by faculty and staff to facilitate transfer of credit earned, but no need was stated for formal articulation agencies or policies;

(4) Emphasis was given to the need for institutions to effectively, efficiently, fairly, and without misunderstanding, accept transfer credit;

(5) Recognition was explicit that American institutions of higher education are divergent, autonomous, and by implication, not particularly likely to uniformly accept transfer credit, or even if accepting it, to uniformly apply it to a student's major or degree program.

## IV. Regional Standards and Continuing Education Units

The Southern Association of Colleges and Schools is the regional accrediting agency for Florida. Below is Standard Three passed by its College Delegate Assembly along with the interpretations published with it, by the Commission on Colleges.

### STANDARD THREE
### Educational Program

> The educational program must be clearly related to the purposes of the institution. The relationship between purposes, program, and their evaluation must be demonstrated in policies and procedures of admission, content of curricula, requirements for graduation, instructional methods and procedures and quality of work required of the students.
>
> An institution should have a well-defined and clearly expressed policy of admission. The admission policy should be related to the educational purposes of the institution and should establish such qualitative and quantitative standards and criteria as are necessary to insure the admission of students who can benefit from the educational program.
>
> The curricular offerings of an institution should be clearly and accurately described in published materials. Curricula should be directly related and appropriate to the purposes and objectives of the institution, to the ability and preparation of the students admitted, and to the financial and instructional resources of the institution.
>
> The principal focus of the total institution should be on the education of students. Instruction is the basic means of this end. Instructional techniques and policies should express the purposes of the institution, as well as the specific objectives of an individual course. Instruction, to be effective, must be evaluated continuously, and an institution should be able to present evidence that efforts are being made to improve instruction. Concern for improvement of instruction is a mark of institutional vitality.[35,9].

## Illustrations and Interpretations
## [of Standard Three]

### 1. Admission

. . .

It is recognized that there are methods of preparation and forms of credentials distinct from the preparation and diploma of a completed high school education which may give evidence of an individual's ability to profit from and make satisfactory progress in the educational programs of a particular institution. Some examples of such preparation or credentials are experience, study, and passing of examinations outside the high school environment. Each institution must, however, assume continuing responsibility for appropriate and documented evaluation of its preparation and credential requirements in terms of its own educational objectives and policies.

The policy with regard to accepting transfer credit should be clearly defined. The quality of work for transferred credits should be in keeping with the quality required of all students of the institution. The student transferring should be provided the opportunity to obtain information concerning his/her standing prior to enrollment.

### 2. Curriculum

There should be a clearly defined process by which the curriculum is reviewed and established. This process should recognize the various roles of the faculty, the administration, and the governing board.

The determination of general policy is the responsibility of the governing board. Such matters are the number and types of degrees, the number and nature of the divisions, schools, or colleges through which the curriculum is administered, and the extent to which the institution should offer graduate work are clearly areas over which the governing board has final jurisdiction. The administration and faculty are responsible for the development of proposed academic programs and recommendations on curricular changes for submission to the governing board. They are also responsible for implementing the general policy and arranging for the institution's academic offerings as established by the board.

In a single-purpose institution responsibility for curriculum control and administration should be assigned to a committee of the faculty and administrative officials. A multi-purpose institution might have an entity for each division, school, or college, but should establish a single coordinating body at the institution level. In every case, areas of jurisdiction should be defined, with the channels of communication and control clearly established.

The scope and nature of the curriculum should be related to the stated purposes of the institution and should be in keeping with the available and projected resources, both financial and academic. Definite efforts should be made to avoid the proliferation of course offerings and degree programs. A small institution with limited resources should not offer a wide variety of major programs and degrees. New programs should be initiated only when a need can be identified and fully documented, and existing programs should be evaluated periodically. There should be in each undergraduate division a recognizable common core of subject matter that expresses the educational philosophy of the institution.

In each degree program there should be an orderly and identifiable sequence of courses with an adequate number of hours required in courses above the elementary level and with an appropriate system of prerequisites. The institution should define clearly what is meant by a major or a field of concentration, with stated minimums and maximums of hours required. There should be limitations on the number of hours allowed in specialized areas. Provision should be made for electives.

An institution must maintain a permanent file of course descriptions adequate to inform students of course content.

The development of pre-professional programs should be related to future placement opportunities and locations.

Programs designed to prepare students for employment in technical or semi-professional occupations may lead to an associate or higher degree.

Degree programs shall require high school graduation or the equivalent for admission and shall contain a basic core of general education. One component shall be courses designed to develop skill in oral and written communication.

In a non-degree occupational oriented program which has no [?] general education component, the institution is encouraged to provide instruction in the basic skills of oral and written communication.

> "Inverted," ["upside-down,"] "two plus two," or similar programs must contain at the baccalaureate-granting institution advanced credit hours of work in the subject field consistent with similar degree majors at the institutions [for AS degree students transferring without sufficient general education, but many technical/pre-professional courses ].
>
> The catalog and other published materials concerning all institutional offerings on and off campus, should accurately and honestly reflect the academic resources of the institution.
>
> Congruency with institutional purposes should be a primary consideration in reviewing all curricular changes. Existing programs should also be evaluated periodically for consistency with instructional purposes.
>
> 3. Instruction
>
> . . .
>
> In certain professional, vocational, and technical programs, particularly the allied health areas, appropriate and meaningful clinical and other affiliations with outside agencies are essential. In all such cases, learning experiences for which credit is awarded must be under the full control and supervision of the educational institution. When two or more institutions are operating consortium arrangements for the exchange of students or credits, all the participating institutions should be accredited to offer credit work at the appropriate degree level.
>
> For technical, vocational, and specialized programs, the institution must demonstrate that an effective relationship exists between curriculum content and current practices in business and industry. The use of lay advisory committees and a comprehensive follow-up program of graduates are means commonly used for the evaluation of effectiveness in meeting program objectives.[35,9-13.] [All underlined words marked for emphasis.]

Clearly, the Standard is general and the interpretation are broad gauge. The reason for this may be that the Association accredits both two-year and four-year institutions, but only one set of standards. The Southern Association did have separate standards until about 1970.

To examine the possible differences in accrediting standards for two-year institutions only, rather than consider only a single set for two- and four-year institutions, a handbook was obtained from the Accrediting Commission of Community and Junior Colleges of the Western Association of Schools and Colleges.[14.] This Association, an accrediting agency for postsecondary institutions in California, Hawaii, and off-shore entities, publishes separate standards for all two-year institutions. Its Handbook indicated a concern for the credits and programs of non-accredited institutions sending students and of credit from non-traditional programs. A minor reference was made to occupational programs. Thus, these separate standards seem little better than those from the Southern Association; in fact, the organization, interpretation and questions to visiting team members of the Southern Association, published in separate manuals, are much more focused and clearly written.[22;23.]

In the Southern Association policies quoted above, development of the academic program is identified as a responsibility of the administration and faculty. It is emphasized throughout that the curriculum should be related to the stated purposes of the institution. Other important policy matters about the management of the curriculum are also presented. However, nothing is said about the need for articulation policies or mechanisms; the interpretations do mention that an institutional policy on transfer credit should be in existence. Mention is made only about that portion of occupational programs which offer credit as if this were an infrequent practice. The self-study manual of the Association suggests some questions which do recognize the existence of both degree and non-degree occupational programs.

> If degree programs are designed to prepare students in technical or semi-professional occupations, do they require high school graduation or the equivalent? Show that degree programs contain a basic core of *general education*? What courses are provided to develop *skill* in oral and written communication?
>
> In nondegree, occupationally oriented programs, describe and evaluate the efforts made by the institution to provide instruction in the *basic skills* of oral and written communication.[22,20-21] [Emphasis added.]

The distinction in this quotation between degree technical and non-degree occupational programs centers squarely on the general education component, which is to be fully developed for the former, but very spare and basic in the latter. The AA degree in Florida has as its central curriculum concept a requirement of 36 semester hours in general education; the AS (and sometimes the AAS) degree programs require as little as 12 and as many as 26 hours of general education. It should be noted that the non-degree occupational programs in Florida often require very basic communication and mathematics courses, but they have *no* counterparts in the regular curricula of the community colleges or lower division of the four-year universities.

The Southern Association has a Standard (Nine), titled Special Activities, which discusses a variety of non-credit and credit activities.[35, 30-31] The credit activities relate to the awarding of credit for experimental learning, contracts for educational programs, nontraditional degree programs and off-campus instruction. The concept and application of the Continuing Education Unit (CEU) in this Standard is the common idea which ties together the disparate subgroups of credit and non-credit activities. Below is the CEU definition section from the Standard and the illustrations of activities for which the CEU is often awarded.

> 5. The Continuing Education Unit.
>
> The continuing education unit (C.E.U.) should be used as the basic means for recognizing an individual's participation in, and for recording an institution's offering of, noncredit classes, courses, and programs. A C.E.U. is defined as ten contact hours of participation in an organized continuing education (adult or extension) experience under responsible sponsorship, capable direction, and qualified instruction. There are two types of C.E.U. applications, Individual and Institutional.
>
> The following criteria are to be utilized for the awarding of Individual C.E.U.'s:
>
> a. The noncredit activity is planned in response to an assessment of educational need for a specific target population.
>
> b. There is a statement of objectives and rationale.
>
> c. Content is selected and is organized in a sequential manner.
>
> d. There is evidence of pre-planning which should include opportunity for input by a representative of the target group to be served, the faculty area having content expertise, and continuing education personnel.

e. The activity is of an instructional nature and is sponsored or approved by an academic or administrative unit of the institution best qualified to affect the quality of the program content and to approve the resource personnel utilized.

f. There is a provision for registration for individual participants and to provide data for institutional reporting.

g. Appropriate evaluation procedures are utilized and criteria are established for awarding C.E.U.'s to individual students prior to the beginning of the activity. This may include the evaluation of student performance, instructional procedures, and course effectiveness.

Noncredit offerings which do not meet the individual C.E.U. criteria should be accounted for only in terms of the Institutional C.E.U.; no Individual C.E.U.'s should be awarded. Normally these noncredit offerings will be less structured and more informal in nature.

Neither Individual nor Institutional C.E.U.'s normally should be used to recognize or account for participation in entertainment, social, or athletic activities. Institutional C.E.U.'s should meet the following criteria:

a. The activity is a planned educational experience of a continuing education nature.

b. The activity is sponsored by an academic or administrative unit of the institution qualified to affect the quality of the program content and to select and approve the resource personnel utilized.

c. Record of attendance is required for institutional reporting use and a file of program materials will be maintained by the administrative unit for special activities. Attendance records may be in terms of an accurate headcount.[35,33-34].

. . .

10. Conferences and Institutes

Conferences and institutes and their many variations are an important part of the special activities programs of many institutions. For purposes of identification and clarification the following categories and definitions may be useful:

CONFERENCE

A general type of meeting usually of one or more days' duration, attended by a fairly large number of people. A conference will have a central theme but is often loosely structured to cover a wide range of topics. The emphasis is on prepared presentations by authoritative speakers, although division into small-group sessions for discussion purposes is often a related activity.

INSTITUTE

Generally similar to a conference, but more tightly structured to provide a more systematic development of its theme, with the emphasis more on providing instruction in principles and techniques than on general information. Participants are usually individuals who already have some competence in the field of interest. Institute programs may have certain continuity, meeting on a yearly basis for example.

SHORT COURSE

A sequential offering, as a rule under a single instructor, meeting on a regular basis for a stipulated number of class sessions over a short period of time (e.g., one to three weeks). Quizzes and examinations may be given depending upon the determination of requirements. The noncredit course under the public service definition may resemble the credit course in everything but the awarding of credit. It may also be more informal and more flexible in its approach in order to meet the needs of students.

WORKSHOP

Usually meets for a continual period of time over a period of one or more days. The distinguishing feature of the workshop is that it combines instruction with laboratory or experimental activity for the participants. The emphasis is more likely to be on skill training than on general principles.

SEMINAR

A small grouping of people with the primary emphasis on discussion under a leader or resource person or persons. In continuing higher education, a seminar is more likely to be a one-time offering, although it may continue for several days.

> SPECIAL TRAINING PROGRAM
>
> A skill program which offers a combination of instruction and practice. The approach is usually on a more individualized basis than a workshop.
>
> For all of the above conference and institute programs, the administrative unit for special activities should provide for a systematic evaluation to assess the effectiveness of the institution in achieving individual and programmatic goals.
>
> These programs and the amount of credit or C.E.U.'s for each should be determined in advance through the regular channels of the administrative unit for special activities in cooperation with the appropriate deans and departments of the institution.
>
> 11. On-Campus Programs
>
> Many of the special activities of an institution are conducted on campus. Such programs include independent and correspondence study, evening classes and special summer sessions which are not a part of the regular schedule and curriculum of the institution, and other types of programs which are conducted on campus in continuing education and adult and extension activities which do not fit the usual format or structure of the institution's regular education program (e.g., conferences, institutes, short courses, workshops, seminars, special training programs, weekend college, mini-college programs, newspaper, TV, and other media courses or programs).
>
> The administrative unit for special activities should provide for a systematic evaluation of on-campus special activity programs to assess the effectiveness of the institution in achieving individual and programmatic goals.
>
> These programs and the amount of credit for C.E.U.'s for each should be determined in advance through the regular channels of the administrative unit for special activities in cooperation with the appropriate deans and departments of the institution.[35,36-38]. [All underlines added for emphasis.]

The formal definition restricts eligibility of programs to award CEU's for those activities which are sponsored by an administrative or academic unit of an institution; excluded, it seems, would be programs sponsored wholly by external organizations, although an educational and an external organization may jointly sponsor programs.[6.] There are various kinds of programs which are excluded also, such as those devoted to social, leisure or athletic activities. The grounds for inclusion are that a program must be instructional in character; thus football clinics may be included but attendance at athletic games is not.

One of the anticipated problems identified early in the use of CEU's was that there appeared to be no particular way by which to equate--even if that appeared to be desirable--the CEU's with academic credit.[19.] Subsequently, for _accountability_, _budgeting_ and _funding_, the CEU was said to be "worth" one-tenth of a credit hour; i.e., ten CEU's would be equal to one credit hour. This conversion equation was incorporated in the Southern Association Standard quoted above, which, incidentally, is the only regionally accrediting association to incorporate CEU policies in its standards. The educational evaluation procedures by which an individual might convert CEU's to academic credit have not been developed nor have such conversion methods been recommended by any of the national or regional professional associations. In fact, some Florida universities have practices which require that students be notified that such conversion is virtually impossible. Of course, university or college transfer admissions officers may evaluate a CEU _transcript_ and decide that some of the learning experiences on it are worthy of general elective or specific course credit; a department chairperson may do the same.

A number of Florida community colleges use CEU's according to the information in their 1979-1981 catalogs; it also seems probable that most of the remainder use CEU's but to determine this other documents would have to be surveyed, e.g., term calendar publications and special continuing education announcements and catalogs. One or two college catalogs indicated that CEU's were assigned to non-degree, non-college credit vocational courses. However, many other practices were found which the colleges used to assign and/or record some unit of learning for enrollment in the non-degree, non-college credit courses. The variety of credit practices used by Florida's 28 community colleges can be seen in page 2 of Table 2, (p. 57). The research to build this table revealed a number of colleges awarding some kind of institutional units or credits. However, there was no relationship found between use of the term "institutional" and award of institutional CEU's. Again, one college did specifically indicate that it gave CEU's for occupational courses.

In the early stages of this project it appeared that the CEU would be an appropriate instructional unit to use for many of the unusual college courses. However, talks with a few registrars indicated that the current funding formula was stimulating (driving) their administrators to develop credit-like equivalent units, e.g., one instructional unit was to be defined as equal to one class hour per week for a semester of 16 weeks of instruction, which is also the definition of academic credit. To the academic purist, such a move might seem audacious or potentially debasing of academic credit. Although that perception may exist and persist, one state, Virginia, has a community college system which has converted all of its course offerings to a common numbering system and a uniform set of credits. Florida seems to be rapidly retreating from its confusing practices to an even more confusing system of occupational credit and non-credit measures. As the variety revealed in Table 2 indicates, much would have to be done even in the community colleges, to say nothing about the effort required for the public school vocational centers, to shape even these practices into a rational system.[17].

In summary, the Southern Regional Accrediting Association provides extensive information about the use of the CEU as an alternative to no credit being assigned appropriate courses. But, the Association guidelines are spare to non-existent about how an institution should cope with the (ever?) expanding occupational offerings at the postsecondary and secondary levels: Is there to be a standardized unit of instruction based on the concept of credit or some other unit? The CEU does not seem to be appropriate for precollege secondary level occupational-vocational offerings.

## V. Concepts, Definitions and Practices

The minimal guidance provided by the standards and interpretations of the regional accrediting agencies for resolving the problems of credit should not be too surprising. Their focus is on the ability of an institution to develop and move toward achievement of realistic educational goals and objectives. Problems with credit, it seems, represent details about important but mundane matters.

The federal and state governments have found it necessary to develop concepts for reporting educational activities, including specifications and definitions for the most minute data elements. The efforts arise from a critical need to bring some order out of a chaos of terminology. The nationwide drives for greater accountability by government officials in the use of tax dollars continues and supports these efforts. The need to devise reports with standard definitions arose when the offspring of World War II veterans moved en masse through the public schools and colleges in the 1950's and 1960's. The current large public contributions to support postsecondary education have renewed public interest in the inputs and outputs of the institutions and again reinforced the older historic need for greater terminology clarity. Thus, it seems that the expansion of education has outrun the ability of analysts to conceptualize and meaningfully classify its current activities. In this section the concept of credit and its near and distant relatives will be examined; a review of the important relationships of program concepts to kinds of credit concludes this section.

National Definitions and State Practices.

Several studies report that the credit system began in the 1870's in the United States.[21] "Colleges needed some mechanism for keeping track of the comparative academic worth of the courses students took and of student progress toward their degrees." The spread of secondary schools in the decade of 1870-80 resulted in adoption of a variety of credit-like units; the leaders of higher education then recommended various systems of counts, points or units. Several regional associations advocated adoption of the unit concept in 1900. Harvard's president, Charles W. Eliot, was in 1906 chairman of the board of The Carnegie Foundation for the Advancement of Teaching; he was an early advocate of the unit concept of credit, i.e., one year of work in a subject. He won out as a result of the Foundation's offering "college faculty a pension if their institution conformed to certain standards, one of which was 'to require 14 units of high school credit' for admission, each unit signifying five recitations a week throughout the year" in any one of four subjects. The unit became known as the "Carnegie Unit" and is predominant today in American secondary schools. The standardized college credit concept also was adopted widely in the early 1900's in tandem with the Carnegie Unit, but on a different basis.

Levine's definition of college credit captures most of the current meaning:

> The credit is a time-based, quantitative measure assigned to courses or course-equivalent learning. It is usually defined as 50 minutes of instruction per week for a term. As terms vary in length credits are usually referred to as semester or quarter credits. Units and credit hour are synonyms for credit.[21,156].

Although there have been periodic reactions against the relating of learning to periods of time, the credit is still the most widely used means by which learning is certified as completed from courses or other experiences. Its use in this form is sometimes undergirded with the idea that all learning involves activity; it is not passive, for activity takes time, and, therefore, learning always involves the passage of time. The formulation of a standard credit hour permitted quantitative comparison between programs and their components; some qualitative information developed when grade points were calculated or "before and after" learning was assessed and the net addition of knowledge found.

The confusion over the meaning of credit results in part because college credit has had attributed to it certain "high culture" values. The fact is, of course, that credit is only part of the means and procedure used to measure and record student progress toward some educational objective. The latter usually involves completion of more than a single course and results in the award of a degree, certificate or diploma.

A 1970 publication of the National Center for Education Statistics, commonly referred to as Handbook VI, defined a large series of terms used in the evaluation and reporting of student progress.[31.] Terms in the first series were labeled units of value, with this explanation:

> UNIT OF VALUE Items under this heading may be used to describe units of value awarded for the successful completion of certain courses, intended to indicate the quantity of course instruction in relation to the total requirements for a diploma, certificate, or degree. Included here are terminology used for units of value and time requirements (such as class periods and minutes per week and the number of weeks) for these units.[31,78.]

Under this class of terms are "unit," "credit," "semester credit hour," "quarter credit hour," and "accomplishment unit." The definitions for the first two terms are listed below.

> Unit - A term frequently used in referring to a given number of hours of classroom and laboratory work during each week of a school term or to the total number of hours for an entire term. One type of unit, referred to as a "Carnegie Unit" represents [in K-12 schools] a year's study in a given subject (of at least 120 sixty-minute hours and their equivalent).
>
> Credit - A term having a similar meaning as "unit," defined [above], sometimes used along with the term "unit" to represent a fraction or multiple of the "unit" value.[31,78.]

The semester and quarter hours were defined as terms indicating the number of hours (or their equivalent) of instruction per week for a course during a school term of one semester or quarter. In its exhaustive treatment of evaluative terms, Handbook VI includes definitions for the awarding of the unit of value.

> CREDIT OR NON-CREDIT An indication as to whether units of value are or are not awarded to pupils for the successful completion of the work of a given course.
>
> Credit Awarded - Units of value awarded to all or some of the pupils for the successful completion of the work of the course. An indication may be made, as appropriate, for the number of units of value, the terminology used, and the type weighing, if any, for units of value of the course. In a junior college an indication may be made to show whether credit is awarded for completion of a general education program, occupational program, or transfer program, or a combination of these. [Underlined emphasis added.]
>
> Credit Not Awarded - No units of value awarded for the successful completion of the work of the course.[31,79]*

The sentence above describing the possible differentiation among junior college programs is important because it reflects current practice at the time Handbook VI was compiled. A current example of this kind of differentiation may be found in the Curriculum Guide for 1980-81 of the Virginia Community College System.[36] Under its system-wide course numbering instructions for use of two and three digit numbers, are these requirements:

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*The final definition of credit which appears in the glossary of Handbook VI, p. 259, incorporates the unique elements from all of the preceding definitions. This final definition is repeated verbatim in a 1980 national publication about instructional programs.[18]

Courses numbered 01-09 are courses for Developmental Studies. The credits earned in these courses are not applicable toward associate degree programs; however, upon approval of the Dean of Instruction, some development courses may provide credit applicable to diploma or certificate programs. Students may re-register for these courses in subsequent quarters as necessary until the course objectives are completed.

Courses numbered 10-99 are basic occupational courses for diploma and certificate programs. The credits earned in these courses are applicable toward diploma and certificate programs but are not applicable toward an associate degree.

Courses numbered 100-199 are freshman courses applicable toward associate degree, diploma and certificate programs.

Courses numbered 200-299 are sophomore courses applicable toward associate degree, diploma and certificate programs.[36,26-27.]

Within the Virginia system is the subject matter area of Civil Engineering Technology, a postsecondary instructional program; it contains these surveying course prefixes, numbers, titles, quarter scheduled (when given), credit and prerequisites (when listed):

CIVL 11-12-13 ELEMENTS OF SURVEYING
    I-II-III (5 cr.) (5 cr.) (5 cr.)
CIVL 100 INTRODUCTION TO SURVEYING
    (3 cr.)
CIVI 180 PRINCIPLES OF SURVEYING
    (4 cr.) Prerequisite Basic Trigonometry
    and Introduction to Surveying
CIVL 181-182 SURVEYING I-II (4 cr.) (4 cr.)
    Prerequisite: Algebra, Plane Geometry,
    Basic Trigonometry or MATH 111 or better.
CIVL 185 LAND SURVEYING (5 cr.)
    Prerequisite MATH 112 or MATH 122
.....
CIVL 281 ADVANCED SURVEYING I (4 cr.)
.....36,87-88.

The Virginia course descriptions are listed completely in their Guide, making it easy to sort out the nature of each course, its program and level; the latter is always indicated by the first digit of 0, 1 or 2. By listing together all occupational-technical and vocational-skill courses it is even possible to see a career education path beginning at the high school level, whether for high school students, dropouts or adults. Incorporating all of the career education courses along with the traditional college lower division courses also enhances the possibility to build inter-dependencies between academic "tool" and skill courses and career education courses. The central catalog of courses is an interesting means to control proliferation of courses in the community colleges; however, this kind of centralization is most likely to be anathema in Florida where institutional autonomy in program and course matters has existed for more than 20 years. In any event, the evidence from Virginia indicates that course numberings can be used to differentiate programs even though the same credit unit (and its measurement) is used for all kinds and levels of programs.

## Program Terms

The differentiation of programs has probably led to, or been at the bottom of, a variety of "credit" problems. First have been the early status distinctions between academic and professional programs, with the former being seen as designed to furnish the mind with truth and principles of moral conduct, while the latter was considered to be training for the hands to make things or make things work better or effectively. It should be recognized that even in the 1870's most professional schools had admission standards considerably below those of the classical colleges, little real scientific knowledge existed about their fields and only mixed success was demonstrated by their graduates in practice.[21,109-133.] It was market pressure and survival demands that led most classical colleges to permit scientific subjects, let alone agriculture, or the mechanical arts, to be added to the curriculum. The bachelor of science and similar degrees were created in large part to distinguish between "head" and "hand" education programs. Now, of course, the old status distinctions have been almost removed as modern faculties use science and technology to conduct their scholarly activities.

To understand the century-old division between classical academics and professions is to know the character of the disputes between modern academic and career education officials. However, the distinction has grown more complex because of the emergence of "high" technology, which requires postsecondary levels of instruction, and which differs from the more traditional trade and skill training or education. The Administrative Code of Florida--the statutory-like implementing rules--specifically prohibits any of the nine universities from accepting occupational courses from transfer students seeking admission. [6C-6.04 (3) (b) (i) and (4) (b) (i).][8] The same prohibition is repeated in most university catalogs. It should be noted that there are decade-old rumors that several, if not all universities, now have discovered that they can profitably accept transfer students with AS degrees and legitimately award them bachelor's degrees by requiring that they complete their professional courses and remaining general education requirements in their junior and senior years. Levine and others call these "upside-down" bachelor's degree programs and suggest that they may be a growing phenomenon.[21,116] He reports that the University of Minnesota General College in 1970 may have been one of the first institutions to formalize a specific bachelor's degree of applied studies which mixes technical training and liberal education.[21,355]

The concept of program has had a rocky road to survive as a result of the program planning and budgeting movement of the 1960's. As indicated above, a program is becoming even more important to define as attempts are made to differentiate postsecondary from secondary or pre-college occupational-vocational-career education offerings. The first thing which had to be done for the sake of clarity was to strictly define the term program as organized instructional activities, i.e., only instructional programs would be of interest.

A 1978 publication of the National Center of Education Statistics (NCES) defines instructional program in its glossary as:

> A plan of one or more courses or combination of courses and procedures designed to accomplish a predetermined objective or set of allied objectives, such as preparation for advanced study, qualification for an occupation or range of occupations, or solely to increase knowledge or understanding.[9,175].

Another NCES publication, in draft form in 1980, presents the scope of all educational programs as:

- programs leading to the award of a high school diploma, college degree, or certificate of some form (programs resulting in an award are generally designed to provide one with a well-rounded education or to prepare one for further study or for entry into one or more occupations)
- programs leading to educational attainment generally commensurate with a particular age or grade level - for example, a fifth-grade instructional program (grade-level programs generally prepare an individual for the next level of education)
- programs intended to keep employed individuals current in their fields (so-called continuing professional education or occupational updating programs)
- programs intended to equip individuals for leisure-time pursuits.[18,5].

Although this is another quartet, the definitions provide less clarity than is desirable about the instructional program as a concept. Here is an interpreted version from the preceding for contemporary postsecondary instructional programs in the aggregate:

1. programs leading to a completion award and which enable the recipient to continue formal education or enter an occupation (or two or more) or both, serially;
2. programs designed for a specific age, grade or competency level which are generally considered part of an educational progression and not by themselves sufficient for entry to any particular career; e.g., the fifth grade;
3. programs of continuing education to update, train or retrain a person to retain competence and practice effectively an occupation or profession; and
4. programs for leisure time pursuits.

The effort to clarify these definitions is important because the 1980 NCES terms were derived from earlier confused distinctions about credit; something like them is used today. They are often used to determine which learning experiences within any particular program are credit-worthy. The definitions are used to determine the surrogate learning measures in the academic unit accounting procedures; they are also used as indicators of eligibility for public funds.*

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*Incidentally, the NCES definitions also distinguish programs from classes of subject matter which is the content of the courses in a program; subject matter is the basis for classifying courses in the Florida Department of Education's Statewide Course Numbering System.

The first two categories in the original and revised versions above include academic and technical credit courses and some occupational credit courses. The third used CEU's while the the fourth seems to be truly non-credit.

The authors of the new (1980) NCES-sponsored inventory of instructional programs suggest that (their) classification of programs requires information about two dimensions: program purpose and program category. The latter constitutes the highest level of aggregation in the making of substantive distinctions between instructional programs. The former is defined by NCES as:

PROGRAM PURPOSE DIMENSION

1. Award Programs
    a. Elementary School Diploma Program
    b. Junior High School Diploma Program
    c. High School Diploma Program
    d. Postsecondary Certificate or Diploma Program (less than one year)
    e. Postsecondary Certificate or Diploma Program (one year or more)
    f. Associate Degree Program
    g. Baccalaureate Degree Program
    h. Master's Degree Program
    i. Intermediate Graduate Degree Program
    j. First Professional Degree Program
    k. Doctoral Degree Program
    l. Post-Doctoral Award Program

2. Non-Award Programs
    a. Introductory...
    b. Intermediate...
    c. Advanced...[18,8].

The obvious fact needs to be repeated here that courses, credits, grade quality points, and so on, are all used to determine completion and an appropriate award. Most important here are the award programs 1. d, e, and f. Various kinds of certificates, diplomas or degrees are not mentioned; thus no distinctions are made between AA, AS, or AAS degrees or technical certificates, certificates of applied science, certificates of training, certificates of achievement, certificates of attendance or whatever. Similarly, there is no distinction between postsecondary technical programs and vocational skill trade programs. It is clear that substantive program characteristics are not used to differentiate programs by scope or purpose. It is unclear whether the logic of the classification dimension is being rigidly adhered to or whether "it is not politic" to identify level or complexity along with purpose. Thus, a set of sub-categories for items 1, d, e, and f could be added to indicate that these awards are used for very different levels of programs.

The program category dimension includes a list of 50 substantive program categories grouped into 31 program dimensions. These dimensions and categories could have been further classified (not exclusively) into five groups: academic, professional, technical, vocational, and miscellaneous. The inability of most analysts to further aggregate the program dimensions into exclusive groups indicates the nature of the definitional problem in Florida. Because this new publication is to replace both Handbook VI and a 1970

NCES taxonomy of higher education instructional programs, the new guide would seem to be of less value than the 1970 taxonomy, which deserves examination.

The National Center for Educational Statistics in 1970 published A Taxonomy of Instructional Programs in Higher Education as a guide for all colleges and universities to formally and uniformly report their enrollments, and other data.[15.] The taxonomy was divided into two sections, "Conventional Academic Subdivisions of Knowledge and Training" and "Technological and Occupational Curriculums Leading to Associate Degrees and Other Awards Below the Baccalaureate." The second section indicated for each of the six curriculum areas that "two years of preparation beyond high school are usually sufficient for entrance into these occupational fields." Appendix 3 contained a translation table by which to convert vocational and occupational programs from old survey categories to the (then) new ones. For each category, the term "technologies" was added as the last word to each new program title. There thus was an attempt to specify the full range of postsecondary technical programs. To this day, it appears that the other branches of the federal education establishment have not been able to make such clear distinctions; now the 1970 ones are about to be replaced.

In fact, the definitional problem, as indicated above for the 1980 NCES draft publication, seems about to become even murkier. This can be illustrated with at least one very clear definition listed by Levine in a Glossary to his 1978 study of the undergraduate curriculum; the last items listed came from United States Statutes and are not very helpful either:

> Professional/technical education is college-level training in work subjects. In the catalog study referred to in this volume, professional-technical education is a composite of five fields — business, education, engineering, health science, and technical arts.21,531-532.
>
> Occupational education is "education, training, or retraining for persons 16 years of age or older who have graduated from or left elementary or secondary school, conducted by an institution authorized to provide post-secondary education. . . which is designed to prepare individuals for gainful employment as semi-skilled or skilled workers or technicians or sub-professionals in recognized occupations, or to prepare individuals for enrollments in advanced technical education programs, but excluding any programs. . .considered professional or which require a baccalaureate or advanced degree" (Educational Amendments of 1972.21,528.
>
> Vocational education is defined as the "organized educational programs which are directly related to the preparation of individuals for paid or unpaid employment, or for additional preparation for a career requiring other than a baccalaureate or advanced degree" (Education Amendments of 1976)21,537.

These definitions are very "output" or goal oriented, indicating the highly utilitarian orientation of these education programs. A literal translation of the terms and concepts in the occupational definition indicates that there are two levels of education:

> First are to be programs for school leavers or graduates, young people and adults; the programs are also to prepare persons for gainful employment; they are to be qualified to work in semi-skilled, skilled, technical or less than professional programs.
>
> Second, these same persons, instead of being prepared exclusively for the world of work may instead - "or" - be trained to become eligible for enrollment in advanced technical education programs, but they must not be professional or baccalaureate programs.

These two interpretations might underlie the 1980 NCES program purpose certificate or diploma awards, 1 d. and e., "postsecondary - less than one year" and "postsecondary - one year or more." It could be. But, the point to note is that there are two kinds of technical programs identified, a point of sizeable importance when attempting to assess the kinds of credit assigned to Florida's postsecondary occupational courses. For example, here is a potential situation which is plausible in Florida: a one semester course in refrigeration and heating might qualify a person for certain kinds of employment in a skilled or semi-skilled job, probably the latter. A certificate of training might be awarded, but the credit recorded would be clock or contact hours. A second semester could also be offered, and a certificate of applied science and more clock hours awarded. In this sense, the worker's job might have become technical, because the employee was being exposed to high voltage equipment and hazardous chemicals, requiring some knowledge about how and when these things become unstable. Later on, should the person want to learn more and begin an understanding about a variety of cooling and heating systems, and the chemistry involved, as well as the mechanics, he/she could enroll in an associate in science program, probably for an AAS. At this point, the first year's work would be examined and, not by coincidence, found to be the equivalent of the first year of an AS or AAS. Now, full college credit could be given to this person, i.e., the contact or clock hours would be converted to technical credit, which looked like academic credit. Or, the person could have been attending a two-year college where all certificate courses already were assigned occupational-technical credit, were in effect, already part of an AS or AAS program. Thus an occupational course serving as part of an advanced skill certificate program could also be a beginning course in a two-year technical college-level associate degree program and the course would have the same course number and credits. Note that the first course mentioned most likely would be a pre-college occupational program for a secondary school dropout who had no high school (or GED) diploma. For a high school or college graduate, the course could be a postsecondary level introductory technical course. How, then, should the institution identify (prefix and number) the course? Determine its level? Assign credit hours?

The ACE Guidelines reviewed in section II could be helpful. The experience in Florida with these and other issues will be examined next.

## VI. The Florida Experience

The focus of this section will be on the credit problems identified in Florida's community colleges as they relate to the Statewide Course Numbering System. Any attempt at describing what exists at the institutional level involves greater detail about local policy and procedures; some of the Florida experiences apparently are unique, although many are quite predictable.

### Completion Awards and Programs

The 28 Florida community colleges are authorized to award associate degrees, certificates and diplomas.[8;10;20] The kinds of degrees are left to the discretion of a college's board of trustees. The most common degrees are the AA, the official transfer degree to the public universities, and the AS, principally for college level technical programs. A few colleges also use the AAS, while one college seems to use the AAS in place of the AS. The semester credit awarded to all courses in the AS and AAS degree programs appears identical to traditional academic college credit: one credit equals one course meeting of 50 minutes a week for 15 or 16 semester weeks. A few colleges have associate in general studies degrees (AGS), which are unique among Florida colleges. Degrees and other program data from the 1979-1981 college catalogs are summarized in Table 2.

The distinguishing characteristic between the various associate degrees is not just the program level or the subject

TABLE 2

## SURROGATE LEARNING UNITS FOR PROGRAMS IN FLORIDA'S COMMUNITY COLLEGES

| Units of Instruction | | Program | | Completion Awards | | | | | Hours General Education Requirements | Transferability |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Certificate | | | | | |
| Title | Definition | Kinds of Education | Primary Programs | 2 Year Degrees | 1 Year | 1 Semester | 1 Course | Diploma | | |
| Semester Credit: | 1 cr = 1 class period per week | Traditional Academic College | Arts, letters Science and Pre-professional | AA | - | - | - | - | 36 | yes |
| Semester Hour: | 1 sh = 1 class hour each week | | | | | | | | | |
| (Equivalent always?) | | | | | | | | | | |
| same | same | Technical Postsecondary College | Technical: Advanced Occupational-Vocational | AS<br>AAS | Technical, Appd Sci. Proficiency. | Training<br>--------<br>Part of AS or AAS | Achievement | - | 12-23<br>12-26 | Some general and pre-professional |
| same | same | Eclectic Lower Division College | Self-selected courses and sequences | AGS<br>ASGS | - | - | - | - | Any to 36 | Not usually intended |
| Technical Credit: 1 TC = 1 cr<br>(Only for occupational courses.) | | Some Technical, mostly skilled | Occupational and vocational | Note: 1000 hrs of occupational program may be converted to credit toward an AS. | Certificate of Proficiency | - | - | - | - | - |
| Institutional Unit: 1 IU = 1 cr<br>(Technical courses may have both IU and cr amounts with two different course numbers with one not a CCN.) * | | Technical or skilled with the latter employer oriented | Occupational and vocational; for 16 + age. | -<br>2 yr Certificate also | F-T; Applied Science | P-T; Training | - | - | 0 | - |
| Institutional Credit:<br>(Technical courses for non-college credit for adults use CCN but with an x or y as the level digit.) | 1 IC = 16 lecture hours or 32 lab contacts; or 1 IC = 1 cr. For certain exams also. | Some Technical, mostly skilled. | Adult occupational and vocational | - | Vocational Certificate<br>(Student may be able to subsequently have IC courses evaluated, another fee paid and technical postsecondary college credit awarded.) | | | - | - | - |
| Certificate Hour :<br>(Some courses with CH have CCN's; others have 3 digit vocational numbers.) | about 1 CH per contact hr of lecture and 1 CH per 2 lab hours | Career Education: skilled, competency based | Adult vocational trade | - | Certificate | | | X | - | - |

TABLE 2--Continues

| Units of Instruction | | Program | | Completion Awards | | | | | Hours General Education Requirements | Transferability |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Certificates | | | | | |
| Title | Definition | Kinds of Education | Primary Programs | 2 Year Degrees | 1 Year | 1 Semester | 1 Course | Diploma | | |
| Certificate Credit: | About 1 CH per contact | Career Education: skilled competency based | Adult vocational trade | - | Vocational Certificate | | | May be credit for High School | - | - |
| (Only for courses with a level-1st-digit of 0.) | | (Some subjects may be technical.) | | | | | | | | |
| Continuing Education Unit-CEU's. | Usually 1 CEU= 10 contact hrs | Occupational, skilled; developmental, citizenship, avocational. | Adult continuing education Some courses offered only on demand. | - | - | - | - | - | - | - |
| (One CC has pseudo CCN's but no contact hours or CEU's listed.) | | | | | | | | | | |
| (Another CC listed class hours and CEU's; course numbers were XXX prefixes and four digit numbers.) | | | | - | - | - | - | - | - | - |
| (Several colleges offer CEU's for various kinds of continuing education courses, but the courses are not listed in their catalogs; they may or may not include technical and occupational courses.) | | | | - | - | - | - | - | - | - |
| (Not awarded for courses for which other kinds of credit are awarded.) | | | | - | - | - | - | - | - | - |
| Non-College Credit: Contact or Clock hours | Hours depend on length of program or course. | Occupational, skilled; some technical possible | Continuing Education and Vocational | Hours may be converted to credit in AS program. | Applied Science | Training | Achievement<br>Attendance<br>(ABE) | High School | - | - |
| (At one college no credit for degree [AA, AS] programs was allowed for development (9000 level), physical education or vocational certificate course.) | | | | - | - | - | - | - | - | - |
| (Some courses given no credit at a CC even though many others may offer credit.) | | | | - | - | - | - | - | - | - |

TABLE 2--Continues

| Units of Instruction | | Program | | Completion Awards | | | | | Hours General Education Requirements | Transferability |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Certificate | | | | | |
| Title | Definition | Kinds of Education | Primary Programs | 2 Year Degrees | 1 Year | 1 Semester | 1 Course | Diploma | | |
| Non-credit: may be free or have a low fee; or, may have contact or clock hour charge. | | Any kind of course, but not supported by State. | Leisure, recreational | - | - | - | - | - | - | - |
| Audit: credit course taken for no credit.<br>(Note that in some CC's audits may be converted to credit after following a rigorous procedure.) | | - | - | - | - | - | - | - | - | - |

*CCN = Common or classified course number.

Source: Current catalogs of Florida's 28 public community colleges. (August 1980) matter of courses, but the credit hour requirements for general education courses. The law requires at least 36 semester hours of general education courses for the AA degree. Between 12 and 33 hours may be required for the AS, and 12 to 26 for the AAS. The AGS has almost no such credit requirements. Levine reports that general education accounts for about 61-70 percent of a course of study leading to the AA; 41-50 percent for AS; and, 21-30 percent for the AAS.[21,164.] Nationally, as in Florida, the most often awarded professional and technical two-year program degrees are the AS or AAS, although more than 200 kinds of associate degrees are awarded in the United States.

Florida offers a variety of certificates for completion of both postsecondary technical and pre-college occupational programs. Like the authority for associate degrees, that for certificates identifies no particular kinds, although some common use patterns can be identified among the 28 colleges; see Table 2. Here is a description of certificates which fits Florida very well:

> Certificate programs are, for the most part, highly specialized career courses which are usually, though not universally, shorter than degree programs. They are occasionally geared for admission to licensure or career entrance tests, and they are far more common at two-year colleges. . .Thirty-one percent of two-year arts and sciences programs and 83 percent of two-year professional/technical programs award certificates.[21,165.]

Table 3

## SELECTED DEFINITIONS USED IN THE DIVISION OF COMMUNITY COLLEGES'S PROGRAM INVENTORY

TYPE - Occupational Program Type. There are two levels of Occupational Programs offered in community colleges, namely:

A. Post-Secondary Technical (Tech) - This includes programs of study and their related courses designed to prepare persons for employment at the technical level which is between that of the skilled and the professional. These are usually two-year programs of study made up of college-level credit courses which are, for the most part, transferable.

B. Post-Secondary Skilled/Semi-Skilled (Voc) - This includes programs of study and their related courses designed to prepare students for employment at a semi-skilled or skilled level which is between that of the unskilled and the technician. These are usually clock hour or institutional credit programs and courses.

LGTH - The number of semester credit hours (SSH) or clock hours (CLK) required to complete the program.

DEG - The type of award given upon completion of a program as defined below:

AA - Associate of Arts. An award certifying the completion of a two-year lower division undergraduate program of studies which is applicable to a bachelor's or advanced degree.

AS - Associate of Science degree. An award certifying the completion of a two-year technical program of study. In some cases students completing these programs transfer to a university to complete a higher level degree in the field. Therefore, the AS degree is not necessarily a terminal degree.

AAS - Associate of Applied Science. An award certifying the completion of a two-year vocational program of study.

TCT - Technical Certificate. An award certifying the completion of technical programs of study consisting principally of the prescribed specialized courses in the program area. These are

Table 3--Continued

programs which usually consist of one academic year of full-time study.

| | |
|---|---|
| CTAS - | Certificate of Applied Sciences. An award certifying the completion of a vocational program of study which is usually of a duration longer than one term (semester), but less than two years of full-time study. |
| CTTR - | Certification of Training. An award certifying the completion of a vocational program of study which is one term (semester) or less of full-time study. |

Source: Report of Annual Program Inventory By College and System-wide 1978-79, Division of Community Colleges [1979], p. iii.

The diploma may be awarded by some community colleges to students completing high school, whether by passage of the GED or through completion of high school courses at a college after an accumulation of Carnegie Units. The diploma may be used like the certificate for completion of some vocational programs lasting a year or less.

The Division of Community Colleges (DCC), Florida Department of Education, maintains a program inventory for all community colleges; it is part of the central information system supporting cost analysis of programs which in turn supports the community college system legislative budget requests.[23]. Documentation of terms used includes three data elements which are of particular interest; the first is that for completion awards, abbreviation DEG--see Table 3 preceding. The associate degree definitions are quite typical with the major exception of the emphasis that the AS is not necessarily a terminal degree; that is, it states that a student with an AS may transfer to a university. Almost every community college catalog has a warning to students that AS degree postsecondary technical programs are not transfer degree programs and that the student may not receive credit for technical courses taken. Some catalogs are more optimistic than others and say something like "many technical courses may transfer." The first data element in Table 3, TYPE, for occupational program type, is also optimistic about postsecondary technical programs: "These are usually two-year programs of study made up of college-level credit courses which are, for the most part, transferable." This would, of course, be true for all general education academic courses and the college parallel elective courses usually. However, it should be noted (again) that the official rules of Florida for the State University System say that transfer students with occupational courses are not to receive credit for them when they enter the universities.

It should be evident from an examination of Table 3 that the specification of separate data elements for TYPE and DEG is a recognition of the local practice of using the same kind of completion award for _either_ type of occupational program. Unlike higher education which includes level in the concept of its completion awards--associate

(2-year), bachelor (4-year), master (5-year), doctorate (6+ years)--that distinction does not exist necessarily for the awards given at community colleges. This fact is observable in Table 2 where the very same name (i.e., certificate) has the same discipline terms (e.g., "in applied science") and is awarded for both types of occupational courses. However, beware; the "courses" identified from a different data source summarized in Table 5 which have clock hours and which might appear as introductory "courses" may not require a high school diploma or equivalent; another stereotypical example is the beginning automotive body and fender courses. Perhaps they were classified as postsecondary courses or programs because of the kind of institution offering them, e.g., a community college. By the second TYPE definition--postsecondary skilled, semi-skilled--in Table 3, all occupational courses even if pre-college, appear to be classified as postsecondary; the last sentence of the definition seems to indicate the pre-college nature of the course by the units assigned to them: "There are usually clock hours or institutional credit programs and courses," (underline added).

The application of these definitions by the Division of Community Colleges to all occupational programs at the 28 community colleges can be found in the 95 pages of single-spaced lines of program inventory data.[3a]. By checking each line for a program which seems to be at variance with the formal definitions, these combinations were found: Many vocational skilled/semi-skilled programs are listed in this inventory with student semester hours: 54 AS; 26 AAS; 94 technical certificate; 42 certificate in applied science; and 26 certificate of training programs. There also were 15 AAS technical programs with student semester hours, and 3 technical certificate programs with clock hours. The Division of Community College definitions apparently represent modal frequencies of practices in the designation of program awards and credits. It also seems apparent that the DCC has, in the reporting of this data, forced differently named associate degree programs and the one year certificates of proficiency programs into the categories of Table 3. They, of course, do not have authority to require the 28 colleges to use these classes. Another, more condensed list of occupational programs for the community colleges appears in Appendix B.

The variety of formal authority given the individual colleges for occupational and vocational programs is summarized in Table 4. Comments about kinds of credit in it are either presented as found in the statutes or rules, or inserted from information gleaned from the 1979-81 catalog study. There should be no question about the extensive authority of local institutions to offer occupational programs after reading Table 4. However, item 7 is most noteworthy, for it designates occupational programs in ways which equate or restrict funding from the State. The absence of the term "postsecondary" is puzzling; the separate categories for technical and skilled/semi-skilled make it

## Table 4

## Postsecondary Vocational And Occupational Education Programs and Courses With And Without College-Level Academic Credit

1. School boards can provide college credit courses under agreement (contract) with a community college not having a Postsecondary Area Vocational Technical Center (PAVTC) in the district. 6A-14.311(7).

2. Comprehensive voc ed programs which can be offered by both schools and community colleges do not include occupational ed programs or courses which are preprofessional in nature and a planned part of the curriculum for a bachelor's degree. 6A-14.34 and .343(2).

3. Instructional components of postsecondary voc ed programs at schools or colleges for students with or without a high school diploma, differentiated by age, include:
   a. Under 19 (for the unemployed or under-employed) [usually non-college credit]
      1. registered preapprenticeship training
      2. other normal voc ed programs
   b. 19 and older (for gainful employment):
      1. certificate [frequently college credit];
      2. associate degree [credit].

   6A-14.345(4)&(5).

4. Community college district boards can authorize college credit voc ed courses for an associate degree, courses for certificate programs and short courses, institutes, etc. 6A-14.341(5).

5. A community college with a PAVTC can offer to all persons 19 or older both college credit courses and an associate degree and certificate and non-college credit voc ed programs and courses. 6A-14.341(4).

6. Adult voc ed programs offer courses which cover the full scope and types of courses, most of which would be non-college credit. 6A-14.343, 344, 345.

7. Classification of occupational programs at the community colleges by the 1979 Florida Legislature:

   The following definitions shall apply to occupational programs in community colleges:

Table 4--Continued

1. Technical programs of study and related courses designed to prepare persons for employment at the technical level between that of the skilled and the professional.

2. Skilled/semi-skilled programs of study, apprenticeships and related courses designed to prepare students for employment at a semi-skilled or skilled level between that of the unskilled and the technician.

3. Supplemental courses ogranized for the purpose of upgrading students who are currently, or who have been previously employed in an occupational field, or as a homemaker, but should not include courses which are organized as a unit of a preparatory program of study.

Enrollments in supplemental programs shall be assigned on the following priorities:

1. In-service programs for public service occupations.

2. Programs for currently employed or previously employed students in the field of study in which they are enrolled and need to upgrade their employment skill.

3. Programs offered at the request of an employer to develop a pool of qualified workers for new or expanded employment opportunities.

4. Programs for the occupation of homemaking including consumer education, parenthood and family living education, child development and guidance, food and nutrition, housing and home management (including resource management), and clothing and textiles. [Chapter 79-212, the 1979-81 Annual Budgets, in proviso language following item 345.]

Source: Florida Statutes and Florida Administrative Code, through 1979 and part of 1980.

possible to define technical programs as the only ones which are postsecondary, which is the interpretation a number of state and institutional officials would like to make but have not had legislative support to formalize. "Clouded" might be a description of the definitional situation at the state level, with the terms "energetic" and "individualistic" appropriate for describing the immensely diverse but similar educational efforts at the local level. However, the state plan for vocational education and its definitions may make the "credit" situation opaque.

## Units of Credit

In Section II above, it is reported that three kinds of instructional credit units were obvious: traditional credit, of a growing variety from the use of examinations and evaluations of experience, as well as from courses; continuing education units; and non-credit courses or hours. Only traditional credits are normally used to earn an associate degree. Table 2 above indicates a variety of other forms of credit exist at particular colleges, most of which are attached to one year certificate awards or the term "institution." The separate technical credit and institutional unit entries both are defined in a manner exactly like the semester hour, which is the equivalent of a semester credit. However, the institutional credit and certificate credit (and certificate hour) entries are unique in their formulations--they seem to be hybrids between clock hours and semester hours. If, as several institutional and state officials report, there is growing pressure to convert all occupational courses to semester hours, it is not evident in the state vocational plan. Several persons suggesting the growing importance of converting clock hours to semester hours attribute the need to current state funding provisions; that connection was not obvious nor confirmed. Although DCC staff have suggested often that their program and course classification system is only for accountability purposes and represents what _is_, they also constantly advise that academic or educational decisions should not be based on their classifications. In the opinion of institutional officials these distinctions do not exist. It is clear (again) that DCC staff must convert these several different systems of credit units offered by the institutions to fit their limited-credit categories, as stated in Table 3. It is true that they recognize _institutional_ credit, according to the second (b) postsecondary definition, which term appears in other documents as well. However, it is not separately identified in the program inventory from other kinds of semester-hour credits. The DCC computer programs may have in them a set of conversion ratios to change different units to credits in order to standardize whatever data the institutions send them; or, other procedures may be used for analytic purposes. This description of problematic data areas is not, nor is it intended to be, a subtle or specific castigation of the DCC's efforts, for their achievements in building a viable information system by persuasion has been a monumental achievement; their MIS is probably unexcelled elsewhere in the U.S. Having said that, though, does not remove the identified data differences, which are further demonstrated below.

For example, Table 5 presents some specific programs and their principal characteristics. Some of the data were coded by DCC staff, while much was done by institutional staff. The reliability of their information seems high because the data were compiled from job placement and followup reports for the Legislature (which data are not reported here.) To understand the similarities and differences in program characteristics apparent in Table 5 only requires reference to the definitions in Table 3. Table 5 reveals the following program characteristics:

1. Institutional programs with the same program code may have sub-programs of different:
    - a. types - technical or skill
    - b. lengths - in hours
    - c. units - semester or clock hours
    - d. awards - AA, AS, TCERT, AAS, CAS, CT (see the codes in Table 3)
2. Some programs with the same names have different codes; the difference in the programs is not obvious, except by characterics 1 a-d. (The eighth number of the program code is to differentiate degree and certificate programs at the same institution.)

## TABLE 5

## POSTSECONDARY OCCUPATIONAL PROGRAM INFORMATION FROM THE PLACEMENT AND FOLLOW UP REPORTS SUBMITTED BY COMMUNITY COLLEGES TO THE DIVISION OF COMMUNITY COLLEGES*

| Program Code | Community College | Program Name | Post Sec-Type | Program Length | | Award Type | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sem. Hr. | Clock | AA | AS | TECH CERT | AAS | CAS | CT |
| 12105000 | PCC | Horticulture Technology | Tech | 62 | | | X | | | | |
| " | SCC | " | Skill | | 2500 | | | | | | X |
| 12211000 | FJCJ | Hospitality Management | Tech | 60 | | | X | | | | |
| 12301000 | SFCC | Dental Asst-Management | Tech | 87 | | | X | | | | |
| 12301010 | PBJC | Dental Assisting | Tech | 35 | | | | X | | | |
| " | SFCC | " | Tech | 87 | | | X | | | | |
| 12301011 | SFCC | Dental Assisting | Tech | 58 | | | | X | | | |
| 12303020 | BRE | Practical Nursing | Tech | 49 | | | | | | X | |
| " | DBCC | " | Skill | | 1332 | | | | | X | |
| " | FJCJ | " | Tech | | 1326 | | | | | X | |
| " | MDCC | " | Tech | 63 | | | | X | | | |
| " | SCC | " | Skill | | 1356 | | | | | X | |
| " | SOFL | " | Tech | | 1368 | | | | | X | |
| 12303021 | SFCC | Nursing (L.P.N.) | Tech | 51 | | | | X | | | |
| 12303022 | SFCC | Nursing (L.P.N.) | Tech* | (*S, 1979) | 1320 | | | | | X | |
| 12401021 | OWJC | Child Development | Tech | 64 | | | X | | | | |
| 12401022 | OWJC | Child Care | Tech | 33 | | | | X | | | |
| 12401023 | OWJC | Child Care | Skill | 64 | | | | | X | | |
| 12402010 | SOFL | Child Care & Guidance | Tech | | 540 | | | | | | X |
| 12402011 | SCC | Child Development | Tech | 64 | | | X | | | | |
| 12402012 | DBCC | Child Development | Tech | 62 | | | X | | | | |
| " | SCC | Child Day Care | Skill | | 1300 | | | | | | X |
| 12502002 | OWJC | Data Processing | Tech | 36 | | | | X | | | |
| 12502003 | OWJC | Data Processing | Tech | 64 | | | | | X | | |
| 12502010 | PBJC | Computer Operator | Tech | 31 | | | | X | | | |
| 12502040 | PBJC | Computer Technology | Tech | 63 | | | X | | | | |

TABLE 5--Continued

| Program Code | Community College | Program Name | Post Sec- Type | Program Length | | Award Type | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sem. Hr. | Clock | AA | AS | TECH CERT | AAS | CAS | CT |
| 12507000 | SFCC | Secretarial | Tech | 60 | | | X | | | | |
| 12507010 | BRE-C | Secretarial | Tech | 68 | | | X | | | | |
| " | BRE-M | " | Tech | 68 | | | X | | | | |
| " | BRE-T | " | Tech | 68 | | | X | | | | |
| " | ECC | " | Tech | 61 | | | X | | | | |
| " | VCC | Executive Secretary | Tech | 60 | | | X | | | | |
| 12507011 | VCC | Clerical Certificate | Tech | 36 | | | | X | | | |
| 12507020 | ECC | Secretarial Science | Tech | 32 | | | | X | | | |
| " | PBJC | " | Tech | 62 | | | X | | | | |
| 12507021 | SCC | Secretarial Science | Tech | 68 | | | X | | | | |
| 12507022 | SCC | Secretarial Science | Tech | 34 | | | | | | | X |
| 12507023 | SCC | Secretarial Science | Skill | | 1280 | | | | | | X |
| 12507030 | BRE-M | Stenography | Tech | 38 | | | | | | X | |
| " | ECC | Clerk-Stenography | Tech | 32 | | | | X | | | |
| " | PBJC | Stenography | Tech | 30 | | | | X | | | |
| " | SCC | Applied Shorthand | Skill | | 54 | | | | | | X |
| 12507040 | SFCC | Medical Secretary | Tech | 60 | | | X | | | | |
| " | VCC | " | Tech | 62 | | | X | | | | |
| 12507050 | VCC | Legal Secretary Sci. | Tech | 60 | | | X | | | | |
| 12507060 | DBCC | Machine Shorthand | Skill | | 1512 | | | | | X | |
| 12601000 | CFCC | Air Cond, Heat & Refg | Tech | | 1092 | | | | | X | |
| " | PBJC | " | Tech | 62 | | | X | | | | |
| " | SFCC | " | Tech | 60 | | | X | | | | |
| " | SOFL | " | Tech | | 1260 | | | | | X | |
| 12601040 | PBJC | Air Cond, Heat & Refg | Tech | 29 | | | | X | | | |
| 12615030 | CFCC | Radio & Television Ser | Tech | | 1092 | | | | | X | |
| " | LCCC | Radio Repair | Skill | | 1500 | | | X | | | |
| " | SOFL | Radio, TV Electronics | Tech | | 1260 | | | | | X | |
| 12626020 | CJC | Cosmetology | Tech | | 1200 | | | | | X | |
| " | LCCC | " | Tech | | 1265 | | | X | | | |
| " | SOFL | " | Tech | | 1260 | | | | | X | |
| 12702000 | SFCC | Law Enforcement | Tech | 61 | | | X | | | | |
| " | VCC | " | Tech | 60 | | | X | | | | |
| 12702001 | PBJC | Law Enforcement | Tech | 62 | | | X | | | | |
| " | VCC | " | Tech | 24 | | | | X | | | |

SOURCE: *An "availability sample" of reports from September 1979 through May 1980; DCC, DOE.

3. The same program code may have its postsecondary type changed from one year to the next without any other changes in the characteristics of the program. (This was learned by comparing the dated follow-up reports for the same program code and same institution.)

4. Some technical programs, especially in practical nursing, are listed with units of clock hours. A few skilled programs have student credit hours.

The Division of Community Colleges is in the process (July 1980) of publishing their revised Program Fund Manual; it contains a section, "The Community College Information Classification Structure (CCICS), "which is declared to be one of the most important parts of the DCC management information system."3a,2;1. The rules and procedures of classification are very clear and appear to be extremely sophisticated; it would appear that if all community colleges would implement the CCICS most of the confusion and problems identified in this paper could be solved in a very rational manner.

The first major function to be classified in CCICS is Instruction. It is subdivided into Advanced and Professional (A&P), Occupational, Developmental, Community Instructional Services, and Other Personal Objectives. The A&P category includes all programs and courses leading to a bachelor's or professional degree. "It does not include non-credit courses, specifically designed compensatory (remedial) courses, or vocational and technical courses..."3a,2.10.

The occupational classification is to include all courses, credit and non-credit:

> "Many of the courses classified as occupational instruction are transferable to a State university to apply toward a bachelor's degree; however, they are placed in this [classification] since they are required for an occupational degree or certificate because of their specialized content (underlining in original.)"3a,2.12.

The word "required" is important here because each college course which is classified as occupational will be coded with an "0" in the Statewide Course Numbering System; the classification decision is made by DCC staff. However, there may be special programs in the universities which have similar subject matter and are part of a bona fide bachelor's degree program. An example of this problem is with child development courses - see their programs listed in Table 5. All of this subject area has been classified as occupational by DCC staff; confirming the DCC decisions, it seems, are the many institutional programs awarding clock hour units. However, the program area has been a specialized part of academic Home Economics in the universities for many years. The faculty task forces making judgements about the comparability of the courses in this area have equated many of the community college so-called occupational courses with the pre-professional degree offerings of the universities. The DCC staff reiterate that this occupational classification is for financial analysis purposes, not educational program analysis. Of course, the faculty task force could have made classification errors in this and similar cases; it may need to establish a separate course number for either the college occupational courses or the pre-professional university courses. The fact is, though, that any particular course, regardless of its credit or unit status, may be a primary (or secondary) part of several instructional programs; also its program status may change over time (see 12303022 in Table 5) among various kinds of institutions. Perhaps the real problem is the need of the DCC to have all classified courses designated by one usage category even though the classified courses may, and in the example do, include university offerings as well. Note especially that the "0" designation does not distinguish between technical (advanced or beginning), skilled, semi-skilled, or unskilled, thereby bringing all such courses so designated under the Board of Regents restriction against transferring occupational courses.

The coding instructions for occupational courses also contains a separate code for those courses and programs which address most of the issues identified in this paper. However, the language in the definitions is very subtle in its distinctions; the first two categories are titled "1. Postsecondary Technical..." and the second "2. Postsecondary Skilled/Semi-Skilled..." Included in both are the usual statements about the program goal being preparation for employment, but the last sentence in each is significantly different. For number 1: "These are usually two-year programs of study made up of college level credit courses which are, for the most part, transferable" (underlining in orginial.) Number 2 states: "These are usually clock hour or institutional credit programs and courses similar to those offered in area vocational schools." The level distinction made is also explained by referring to the occupational gradations; thus, a technician is between a professional and a skilled worker. A skilled/semi-skilled worker is between a technician and an unskilled worker.[3a,2.12-2.13]

Two other categories for coding are provided. Number 3 is titled "Supplementary" and comes from current Florida Statutes. Occupational courses in this category are for persons who are currently employed or who have been employed in an occupational field or as a homemaker. This category includes updating or retraining so a person can remain current or reenter the world of work.

The number 4 occupational course category relates to bona fide apprenticeship programs. These are probably the most readily identifiable in the college catalogs because the programs are explained although few courses are listed for them.

To complete the coding structure for instructional programs, the DCC provides for Developmental Instruction and Community Instructional Services. The first concerns compensatory instruction and adult elementary and secondary instruction. No recommendations about credit are included for compensatory courses, the purpose of which is to prepare students for college-level work. Even if it were desired that no credit be given for them toward an academic degree or technical program at the college level, such a recommendation would seem to be challengeable under a 1973 interpretation of the Articulation Agreement. At that time it was decided that reading course credits from a community college were not in fact excluded from transfer under the official agreement. (A similar decision was made for ROTC courses at another time and the Agreement was amended to exclude physical education as a required course.) Thus, the award of college credit for compensatory programs and courses, in whatever form, is left as the prerogative solely of the individual community colleges. It should be noted that some colleges now award or do not award college credit for physical education courses.

The Community Instructional Services categories of courses include citizenship and recreational sub-classes. No supplemental occupational courses are to be included here. The seven groups of subject matter in the citizenship sub-class appear to be those for which continuing education units could be awarded; the only clue to such a possibility is that the courses are all to be identified as non-credit.

The recreational and leisure time sub-class of non-credit would not be entitled to CEU's; see section IV.

A special note about institutional credit must be made. It is incorporated by title here and elsewhere by the DCC; however, it does not seem to be defined anywhere except as it is used in the individual colleges. Apparently it is used by DCC as a label for all of the various non-credit "credit"-unit practices identified in Table 2. The computation ratios for them indicate they have almost no relation to the CEU as it is calculated.

Institutional credit is not mentioned in any national publications or those from regional accrediting agencies, although vocational certificate credit was mentioned by ACE; see section II. Thus, the practice of awarding institutional credit seems most likely to be an educational practice peculiar to a few Florida community colleges. This form of credit seems to have a long history in Florida. The minutes of the Articulation Coordinating Committee very early reported that institutional credit and other irregular units were to be recorded in a remarks section of the new common transcript which was being designed for all community college and university students. However, when this long-time development (the common transcript) finally emerges, at least one community college, and probably several others should be asked to change their policies and practices, a sample of which are described in a November 1977 letter from a college academic official. He explained that institutional credit courses did not need common course numbers "since they are completely and obviously internal to [the college]." The letter further explained: "That is, we do not cut any transcripts for those courses and there is no relationship to any other institution."

One of the difficulties with institutions awarding unusual forms of credit, or non-college credit, or other units, is that the programs and courses permitting them may be much less rigorous than regular credit courses. The CEU was designed to accommodate such courses, as long as they were not recreational (e.g., playing tennis or watching tennis matches). The national standards for the CEU and the Southern Association standard for them make it clear that the CEU is not like academic credit and therefore no conversions between the two are necessary. However, suspicions, rumors and some alleged reports--see Table 2 and the Technical Credit and Audit entries--continue to be heard that an individual has only to pay the credit-hour fee difference and have his/her irregular credits converted to regular college credits. If, in fact, all of these conditions hold, credit award abuses are certainly possible. If, however, the irregular credits are for normal occupational skill programs which have no standard credit units agreed on yet in Florida, then a different kind of problem exists, one which is amenable to rational analysis and a reasonable policy. However, any new state policy rule or regulation would most certainly result in curtailment of some of the independence of the local institutions. But a word of caution: a state policy for a uniform definition of credit, and so on, will not solve the vexing problem of classifying and numbering occupational courses.

Even if the last set of DCC occupational course classifications is used for renumbering, there still may be insufficient means to decide the code for a dual-level occupational course. That is, an occupational course--apparently or actually--may serve several levels of a career program, with only some of them being part of college-level programs. This potential condition could result from an attempt by any educational agency, DCC, SCNS or the State Division of Vocational Education, to more rigorously define various kinds and levels of occupational programs. And, such conditions seem a certainty from the 1979-1981 catalog survey which revealed an enormous diversity of practices in the provision of explanations and specifications for career, occupational and vocational education programs. Some colleges went so far as to identify different course numbers for the same course, one with college-style credit, the other with some form of occupational course units; two numbers might appear together with one course description or be located in the academic section and in the occupational section, with slight modifications in contact and credit hours and course numbers. Determining level is complicated enough, but sorting it out for individual colleges which have different practices of which some are implicit, not explicit, could be extremely difficult. Converting clock hour segments of occupational programs to classified courses in order to identify common courses may be facilitated substantially for colleges which have dual-level courses, i.e., the same course with technical credit and with clock hours. This problem seems to arise from what appears to be the overlap of course and program sequences in the pattern for upward career mobility based on training and expertise. The pattern which first emerged from studying the catalogs appeared to be the following, designated by the "X's":

| Quantity of Formal Courses | Level of Occupational Training | | | | |
|---|---|---|---|---|---|
| | Un-Skilled | Semi-Skilled | Skilled | Beginning Tech | Advanced Tech |
| None | X | | | | |
| One to four | | X | | | |
| One semester or more | | A | X | | |
| One year or more | | | A | X | |
| Two years | | | | A | X |

Upon careful inspection of the details about an occupational program, where given, the actual period, designated by "A's" above, training, might extend to longer periods as the chart shows. The overlaps seemed to result when the "A" of an extended skilled training program turned out also to resemble the first part ("X") of a beginning technical program--or so it seemed in some programs. Several university academic vice presidents over the years have been strongly opposed to awarding transfer credit to any courses which, as they have so colorfully stated it, are "fender bender" courses; these were defined as the courses which were felt shouldn't be given even any technical credit. The informal reactions of academic officers is often that high quality technical education courses do deserve transfer credit; it would be interesting to know if university admissions officers react to these transfer issues formally or informally or both.

Finally, in the matter of credit, is the fact that some area vocational-technical schools (which are part of the public schools) can also award credit units for courses. To read their catalogs is to wish one could find persons with the training offered in their programs, i.e., to find trained persons to repair one's cars and house air conditioners, to advise on healthful ornamental plants and a healthful environment and so on. A particular example about use of credit at this kind of school is that for Pinellas Vocational Technical Institute. Its 1977-79 catalog explains that it is on the quinmester system "which means five 9 week sessions are offered throughout the year." Credits are awarded on the following basis: 1.5 credits result from 5 periods a week or 45 class hours, which is the exact equivalent of 3 credit hours for a college semester of 15 weeks. A course of 360 hours is scheduled to meet 40 times a week and is assigned 12.0 credits. Incidentally, "Automotive Body Repair and Refinishing 9033" requires eight full-time quinmesters, almost two years.

> "Work in the Automotive Body Repair and Refinishing field emcompasses many skills. These include welding, spray painting, metal repair, frame repair, color matching, glass installation and electrical repair."*

Learning and then demonstrating by production of quality work from use of these skills could tax even an energetic person who wanted to become a skilled craftsman. Students completing any program receive a diploma.

## Postscript on Course Numbering and Other Practices

In searching the catalogs of Florida's 28 community colleges, a variety of unusual course numbering practices was seen for the first time. Many of these resulted from the inclusion of vocational courses or programs in the catalog. But all resulted from the autonomy granted each community college to create and administer the programs approved by its board of trustees. There are no state-wide standards for almost all of the practices found in the catalogs, so finding them should not have been a surprise. However, with many reports about student mobility among schools, centers, colleges, and universities, the questions remain about the extent to which a student may transfer with equitable treatment from each new institution. More importantly right now is that the planned conversion and inclusion of all occupational courses in the Statewide Course Numbering System will stimulate a wide variety of changes in college catalogs. Whether this can be accomplished without formal State Board of Education policy being adopted is an open question. Here are the unusual practices found:

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*From the 1977-1979 or 1977-1978 (both periods are used) Catalog of the Pinellas Vocational Technical Institute, "a co-educational post high school technical institution of the Pinellas County [Florida] School System;" Clearwater Florida; pages 8 and 26.

1. Some catalogs list credits, credit hours or semester hours; all are defined in equivalent terms, i.e., one credit and semester hour equals one 50 minute class meeting for 15 or 16 weeks. Only one of these terms was used for all courses in a catalog, unless exceptions were made for clock hours, institutional credit, or other non-college credit units.

2. Courses in catalogs with institutional, technical, certificate credit or units might or might not have classified course numbers.

3. Classified courses with irregular forms of credit might or might not have the units in the computerized course inventory.

4. Some colleges had courses assigned regular college credit but were without classified course numbers.

5. Some courses, in increasing frequency--academic, technical, vocational--had wrong or "made-up" prefixes and numbers when appropriate classified numbers were already in existence. This was a large problem for all occupational courses.

6. Some colleges had occupational courses with pseudo classified course numbers made by "x"ing out the prefix or placing a zero or letter as the first numerical digit of the course number. The remaining portion of the classified course might or might not be correct.

7. Many vocational (skill level) courses used a six-digit, three-alpha, three-number, course designation. These apparently had some systematic meaning in relation to vocational system reference or MIS materials.

8. The general education programs and requirements varied significantly between colleges and for each of the other degree programs offered at a college besides the AA. The Articulation Agreement formally states that each college and four-year university is responsible for creating its own general-education program. This is the same sentiment expressed and elaborated upon by the Southern Association.

9. In the search of the rules, minutes and other documents of the Articulation Coordinating Committee, a current proposal was found which would permit the universities to require general education courses at the upper division level; such a proposal could, if passed, facilitate the transfer of AS and AAS students to a university so they could complete "upside-down" programs for a bachelor's degree. Similarly, the proposal could also make any transfer students take the total hours of general education required by each university, thereby changing the fundamental nature of the Articulation Agreement. The proposal may be a recognition that some of the universities are, or have, increased the general education requirements for their native students and, apparently, for transfers without an AA from the 28 community colleges or any other institutions.

10. The competency movement for basic college skills presents an interesting addition to the means by which certification and/or credit may arise. Perhaps the Articulation

> Coordinating Committee will want to designate a course for those passing the exam so that a typical form of record is used to record achievement.

In summary, the diversity permitted to develop in the autonomous community colleges is everywhere evident. To attempt to use the diverse data for statewide reports DCC squeezes all manner of data into a very rational and appropriate set of categories. The lack of state-wide policy in the area examined are also evident. Without "changes" in state policy, it does not seem likely that SCNS will have many of its problems solved.

## VII. Summaries, Conclusions, and Recommendations

1. The problem of the paper was to determine the existence, extent of, types of, and reasons for different kinds of credit units. Over the past several years the director and staff of the Statewide Course Numbering System had found such surrogate learning measures as institutional credit, common courses with or without credit, remedial or compensatory courses with or without credit, and other unusual arrangements and practices. All of the practices are felt to have the potential to confuse or restrict a community college student's automatic transferability of courses. They also made uniform classification of courses difficult for the faculty committees which, by Florida Statute, were to maintain the course numbering system.

2. The focus of the study became clear when it was found that institutional credit and its various forms resulted largely from the occupational course offerings of some community colleges. Surveys of catalogs, searches of the Florida Statutes and Florida Administrative Code and an extensive search of materials from national organizations, interstate studies and other sources made several points clear:

a. There are no state-level Florida rules or regulations which require the community colleges to use some standard form of credit with occupational courses. In the past several years a variety of almost complete definitions have been issued in the Florida annual or now biennial Legislative budget document, but these have a life of only a year or two. Thus, without any relevant state policy it should be no surprise that the individual institutions do as they think appropriate. It is probably past time for there to be promulgated a set of state policies in this area.

b. The belief that each public community college should define its own educational programs and administer them without particular concern for the program goals of other institutions is at the heart of the concept of institutional autonomy or local control. This idea is so much a part of the Florida community college ideology that the two-year old state coordinating council for the colleges does not have any effective powers granted it over the educational programs of the institution.

c. The independence of the colleges is balanced by the charge to them to act responsibly and serve the needs of their communities and district. From an examination of the catalogs it seems clear that the faculty and staff may be carrying out these responsibilities in a very imaginative and creative manner. Whether or not they are serving other vague and amorphous state or regional "needs" is very hard to tell. But, presuming that such needs do exist and are made manifest, college officials not only will find inadequate guidance in current state policy; they will also discover that the national and regional accrediting agencies have not yet provided the kind of help needed to work out important details.

d. The one flicker of hope for some meaningful guidance may emerge from the community college information system whose manual of codes and procedures speaks directly to the problem of occupational program classification. If those definitions were issued as state policy by the State Board of Education, along with a statement that postsecondary technical courses would all be awarded regular college credit, then most of the confusion would be removed. Such a rule would require an effective date for conversion and instruction that conversion records should be submitted to the Statewide Course Numbering System via its standard forms and procedures. The first catalog after the conversion date should be checked for compliance with the State policy.

e. Implementation of this kind of educational policy should prove helpful to the Division of Community Colleges which must now use persuasion to obtain uniform data from the autonomous colleges. At present the evidence is that the DCC has to force a wide variety of the data they receive into its appropriate but limited set of categories. Should an appropriate state rule be proposed, the DCC should be consulted and asked for input so that a uniform set of degrees, certificates, and diplomas could also be established. For example, an almost two-year long occupational skill program might be awarded a diploma upon completion, rather than a certificate. It seems appropriate to distinguish the completion awards of postsecondary technical programs, e.g., associate degree and certificates, from the awards for completion of occupational skill programs. Diplomas of one kind or another could be awarded for the latter and perhaps, in very special cases, the AAS awarded, e.g., for the programs to train supervisors of shops and of skilled operations. This differentiation is used by public and private vocational schools around the United States.

f. If funding considerations are causing some of the very unusual prefixing, numbering, credit forms and credit unit measures, then it seems appropriate to consider the use of state policy to clarify these matters. First, it seems appropriate to measure, calculate and assign credit units to a standardized basis for all courses offered at the postsecondary level by all institutions involved. The standard system could be that detailed by the American Council on Education for non-college courses, a system which is directly related to current measurement standards for college credit, nation-wide. The ACE measures include standards for lecture, lab and shop, as well as hours and credit for "short" courses. Even the occupational courses evaluated in the Guide could help in this matter, for they include credit estimates.

Second, the ACE recommendation that vocational credit, computed uniformly, was to be assigned to vocational/occupational skill courses (not "certificate" as suggested by ACE) should also be implemented. This can be done during the conversion of all vocational programs to courses by vocational and SCNS staff. To show that a course with the uniformly measured and assigned credit is at the vocational skill level, a "V" could be placed in the left-most column of the credit field of the SCNS classified course record. This designator should help alleviate suspicions that particular occupational courses serve both skill and technical programs simultaneously, rather than being differentiated and offered by level sequentially. That is, a higher order--more analytic than procedural--occupational course should not have a "V"; only the skill courses in which procedures are emphasized most would have a "V" credit prefix. (The "analytic" distinction is spelled out in the ACE guidelines reported in section II.)

3. The incongruities and confusion from the designation of a classified courses as "A" (advanced and professional, i.e., transfer) or "O" (occupational) should be discontinued immediately. The A/O designator is required only by the Division of Community Colleges and is reportedly used only for financial analysis purposes; it seems to have no intrinsic or extrinsic educational purpose other than funding. The fact that faculty task forces, as required by statute, have identified a number of classified courses as lower division pre-professional, not occupational skill courses, and therefore transferable to universities, raises questions about the efficacy of the A/O designator. The situation is doubly confusing when some colleges have "O" designated courses only in their academic transfer curricula, or in both the academic transfer and occupational curricula.

3, a. Following the conclusions and recommendations mentioned in 1.d-f, it would seem that the A/O classification could be changed, using the second set of definitions developed by DCC. Thus, instead of an "O", the occupational technical courses could be coded "T"; the skill courses "S"; the supplemental occupational courses "L"; and the apprenticeship program courses "P" (or whatever other codes would be acceptable). Each "T" course could be considered the equivalent of a university pre-professional course, even when the latter was part of a baccalaureate program. With this system, each classified course could be much better classified and the codes much more informative.

b. In the event the preceding arrangement proves unacceptable to DCC or would not reduce or remove the current confusion, then the A/O should still be discontinued. According to the 1980 DCC college information system guidelines, an additional code will be used to classify each occupational course anyway, so DCC could use the simple fact of an entry in the data element coding field as an indicator that a course is an occupational one. Clearly, should DCC operationalize their own coding structure, the A/O will not be needed on the classified course record at SCNS.

c. Should the A/O be discontinued, this data element could be converted by SCNS to an alphabetical code for course usage in programs. The 26 alphabetical letters would be sufficient to provide a basic indication of "required major," "general education only," and so on. This new information would significantly add to the value of the SCNS course inventory. Because this code would be used for all classified courses, though, so few pure cases of single forms of usage might be found among any set of institutions that the "costs" of collecting the data might make this proposal impractical.

4. The fact of general education course variations among the community colleges and the universities was overwhelmingly confirmed. This variation is positively encouraged by the Southern Association of Colleges and Schools and authorized by official Rule in the Florida Administrative Code. The latter made it a responsibility of all community colleges and of universities with lower division programs to develop their own general education programs. Furthermore, the major curriculum studies of the last decade all emphasize that each institution should devise its own program, then periodically rethink the role of the core liberal arts and sciences in general education with special consideration to be given to the role to be played by the humanities. In other words, the positive side of the chaos of the liberal arts is that a great variety of approaches and subject matter have been and are being tried in general education; this "variety" is cited as a strength of American higher education. Only recently has there been attention directed to the linkages between the quality of basic intellectual skills and general education training in them.

The recent permission given by the 1979 legislature to all Florida institutions with lower-division programs to test for competency at the end of the sophomore year probably will be linked more closely with the general education programs. The development of college level competency-based programs for the sophomore year under the supervision of the Florida Department of Education is already influencing the kinds of skill or tool courses being required in the community colleges.

a. At the present time the colleges are permitted to offer reading courses for transfer credit as a result of that 1973 interpretation of the Articulation Agreement. The practice, which SCNS staff has documented, is that some colleges offer credit for remedial courses, others do not. Again, it must be emphasized that institutional autonomy coupled with lack of state policy makes the discovery of this practice unavoidable. However, if the state policy in 1 above for uniform measurement, computation and assignment of credit is adopted, the problem of comparable courses having or not having credit should be solved.

b. Another state policy proposed which relates to the issue of level of compensatory education (credit) and credit for any other courses with level difficulties should be considered. It seems appropriate to require the use of the zero in the first numerical digit of the number for certain kinds of institutional courses. In the study of the catalogs, very few first digit "zero" courses were seen--their absence drew attention to them. The typical institutional explanation for their absence seems to be that the courses with a zero first digit are not fundable on a normal basis; some state officials dispute this. Nevertheless, it seems appropriate to use a zero first digit for any courses which are clearly not at a postsecondary level. Furthermore, even high school level courses could be included in the Statewide Course Numbering System by requiring that zeroes be entered in both the first and second numerical digits. This very practice has been observed in a few Florida community college catalogs using what might be called pseudo-classified course numbers. The ingenuity of this system is that it allows the standard discipline-subject prefixes to be used which would provide numbers for more than 99 high school courses in each prefix. In other words, if the proposed state policies in 1-3 are enacted, all manner of courses could be listed anywhere with a clear indication of their level. Thus, postsecondary technical courses would always have at least a one or two first digit; occupational skill courses would have a zero first digit. An industrial arts course typically taught in a high school but offered at a community college or area vo-tech center would have two zeroes; any high school courses offered as part of a regular diploma program for adults, or as part of a G.E.D. high school diploma program would also have two zeroes. Any adult basic education courses could, following similar logic, always be assigned a one digit number, i.e., it would have three leading zeroes in the numerical digits; a variety of prefixes could be used as needed. Here is a summary of this proposal

(N=course numerical digit):

NNNN = any postsecondary course, including regular academic and technical courses.

0NNN = any occupational course of a skill or semi-skill nature, whether for programs with or without completion awards; and supplemental occupational courses at the adult level.

00NN = any high school courses, industrial arts courses, trade or vocational courses (for persons not having credit of any kind for completing high school) and apprenticeship courses.

000N = adult basic education and other courses below the secondary level.

The simplicity of this proposal is confounded by the effort to get the necessary data. Also, because up to this time each public institution has been permitted to determine the first numerical digit of each course it offered, specific requirements for all of the codes would have to be issued as state policy.

5. The time has come in the history of Statewide Course Numbering for issuance of a state policy which requires that any course listed by an institution in its regular catalog, counseling, or other curriculum documents, whether as an item in a list of program requirements, or in the course description section, must be listed in the SCNS active portion of the course inventory (i.e., not reserved). It is apparent from a sampling of items in every college catalog that there are courses listed with non-existent prefixes or numbers or descriptions in the SCNS course inventory. Implementing this kind of policy would seem to be more productive than spending

resources to audit the institutional course files regularly. However, audits seem absolutely necessary if the SCNS is not to slowly disintegrate into a hodge-podge of local practices on moderately difficult or unusual courses and programs.

If the policy proposals in 1-4 are adopted, then it should be possible for this proposal to be carried out. It would seem appropriate to require that all courses, of whatever variety, be prefixed and numbered. Two remaining kinds of courses require special mention.

6. It is recommended, following the Southern Association Standards and Interpretations, that continuing education units be assigned all Community Instructional Service courses, rather than regular credit or vocational credit. Although these credit units are often stated with one decimal (e.g., 1.5), the SCNS credit data field and codes can accommodate them. It would be appropriate to precede the credit number with a code prefix like "C," for the CEU.

Although there is a large variety and turnover among CEU courses, there is a lot of repitition of "fashionable" subject areas for various periods of time. It would seem possible to classify these courses, even if they are not listed in the institution's regular course catalog, but in a separate document. Note that oftentimes the supplemental occupational courses are also listed in a separate catalog, sometimes in the same one with the CEU course offerings. The purpose here is not to bring under state control in any way the CEU courses, but to show that there is a set of common CEU courses offered among Florida's colleges and universities. Such listings within the SCNS might even help create a network of information about which institution has a set of CEU courses in specialized subject areas and thereby enhance the continuing education-CIS (community instructional service) programming around the State. It should be realized that many CEU courses are taught by full- or part-time faculty, or they are reviewed by discipline department staff, thus making it relatively easy to classify such courses. Whether any but repeated CEU courses should be entered in the SCNS is a matter to be determined. In fact, it might be best to make listing in the SCNS course inventory voluntary and conduct an experimental listing of these courses for cooperating institutions.

7. The last class of courses are those usually authorized through continuing education offices also; these are the recreation and leisure program offerings. In the system of credits provided above, nothing applies here, not even CEU's. These courses should end up being the only institutionally sponsored courses with absolutely no form of credit assigned them.

8. The decisions about if and how credit is to be awarded for completion of tests or any other forms of evaluation, exclusive of that connected with regular instructional experiences, should probably be left in the very able hands of the Articulation Coordinating Committee members. The identifi-

cation of these non-traditional credits with particular courses should occur only for courses that are or could be entered into the Statewide Course Numbering System course inventory, so that these courses always would have been reviewed by a faculty task force.

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# APPENDICES

A. Documents From the Statewide Course Numbering System

B. Program and Award Data For Florida's 28 Community Colleges

C. Summaries of Florida's Official Rules and Statutes

# Appendix A

## Documents From the Statewide Course Numbering System

**STATE OF FLORIDA**
**DEPARTMENT OF EDUCATION**
TALLAHASSEE 32304

RALPH D. TURLINGTON
COMMISSIONER

March 5, 1979

MEMORANDUM

TO: Dr. Lee Henderson

FROM: Mike DeCarlo Mike

SUBJECT: Student Development Courses in Community Colleges

ENCL: (1) Florida Statewide Course Numbering System Subject Matter Classification and Course Inventory Report: Student Development

(2) Santa Fe Community College Student Development Courses

1. Enclosures (1) and (2) are provided for your information.

2. A review of the Santa Fe Community College inventory indicates 17 listings for a total of 36 credit hours plus 3 listings with variable credits.

3. A review of institutional catalogs enabled our staff to identify only two courses which specify "institutional credit" as opposed to academic credit for student development courses. (It is possible that we did not locate all the cases of "institutional credit" because of the diverse ways catalogs are prepared or because this information is provided for students elsewhere.)

4. The following questions suggest themselves:

a. May student development courses for credit be included in the general education requirement or as elective credit to make up the credit hours necessary for the A.A. degree?

b. If any student development courses count toward academic credit which may be included for the A.A. degree, could not all other students for that degree argue that they ought to be permitted to "test-out" of the course for academic credit?

c. If certain student development courses ought not to be granted academic credit for transfer purposes, ought not there be a policy common to all public community colleges and universities?

5. We were prompted to inquire into this area as a result of rumors that academic credit for student development/remedial course was being used to satisfy general education requirements and/or elective requirements for the A.A. degree and as a result of the course material sent to us for processing.

MAD/as

cc: Harold Kastner
Myron Blee
Tom Baker

STATE OF FLORIDA
DEPARTMENT OF EDUCATION
TALLAHASSEE 32304

RALPH D. TURLINGTON
COMMISSIONER

September 5, 1978

M E M O R A N D U M

TO: Bill Corley

FROM: Michael A. DeCarlo

SUBJECT: Submission of Report

In accordance with your request we are submitting the accompanying materials. The materials are selected, not comprehensive.

The items identified are those which tended to indicate that further inquiry might be warranted before drawing any firm conclusions. The items dealt with concern undergraduate courses.

There are several points which need to be made:

a. A course in a given subject matter could represent proliferation of the curriculum; however, it could also indicate that the faculty member is at the cutting edge of his discipline and in order to be responsive to significant developments he is incorporating the new subject matter in his offerings.

b. A course or courses could be unique and also represent proliferation of the curriculum. The cumulative effect of this practice would result in expenditure of resources better applied to areas which would make a more significant contribution to undergraduate preparation.

c. There are enough indicators to suggest that the management of academic programs at the institutional and/or agency level has not been effective and efficient as it could be because of the absence of a data base such as the course numbering system.

d. The ongoing and cyclical studies in various subject matter areas will enable faculty consultants and their reviewing faculty task force colleagues to identify problems and to propose solutions. It always has been my view that faculty, given the opportunity, confidence, and support of the Legislature, will undertake this responsibility. In fact, those studies will enable a faculty/legislative contact and cooperation which may neither have existed nor have been possible before. I would recommend holding in abeyance any judgement until the appropriate faculty task force members have an opportunity to consider and to address any concerns. I will provide the names of persons who can be helpful with respect to any item.

an equal opportunity employer

e. There are some items which are self explanatory and which suggest the need for timely action.

f. The imprecise definitions and guidelines related to the jurisdiction of community colleges, four-year universities and upper division universities are a major factor in overlap, duplication, destructive competition, and the resulting consequences for judicious use of resources. We are developing a plan, based upon the course numbering system data base and studies, for addressing this matter. I would urge that the Legislative staffs review the provisions for the existence and jurisdiction of both community colleges and upper division universities.

MAD/as

Enclosures

STATE OF FLORIDA
DEPARTMENT OF EDUCATION
TALLAHASSEE 32304

RALPH D. TURLINGTON
COMMISSIONER

June 28, 1978

## MEMORANDUM

TO: Cecil Golden
Associate Deputy Commissioner
Department of Education

FROM: Michael DeCarlo
Director
Statewide Course Numbering System

SUBJECT: Community College Practices for Designating Credit; Implications for Course Numbering Management Information System, Articulation

Among the 28 community colleges, there are diverse practices for designating non-credit, institutional credit, and transfer credit. In some instances, one may be substituted for the other after the course has been completed. For example, at IRCC a student may enroll in a course for non-credit and after completion of the course receive credit by paying the tuition differential. The institutions desire one course number for non-credit and another for credit.

Also, some institutions do not award credit because they believe the offering to be remedial or "less than college level", while other institutions give credit for just about everything.

Faculty members become upset when their non-credit courses are not equated with credit courses even though it is acknowledged by both institutions that the courses are substantively alike. Students who take courses for non-credit are unable to transfer these courses as electives, while students taking the same course are able to transfer them for elective credit.

"Institutional credit" is often awarded for remedial or "less than college level" courses based upon the belief that it would injure the student's psyche if no credit were awarded. This is, of course, a fiction. It is my view that part of education is reality awareness. Teachers and students should identify deficiences as such and not camouflage them with meaningless symbols.

All of this has consequences for maintaining an accurate course numbering system and management information system. Further, if non-credit, institutional credit, and transfer credit courses that are substantively equivalent are equated on a matrix, receiving institutions will rebel against accepting as transfer credit, a course equated with a non-credit course.

I have repeatedly brought this problem to the attention of the Division of Community Colleges over a four year period. I have presented this situation to the Council of Vice Presidents for Institutional Affairs, orally and in writing. No action has been taken. In view of the continuing problems, I recently again brought this matter to the attention of both Lee Henderson and Harold Kastner who said they would look into it.

My understanding of Dr. Atherton's view is that any effort to standardize terminology and usage in this area would, in effect, be dictating to the community colleges and intruding upon the rights of the individual governing boards. I do not share this view since there exists a mandate for a course numbering system. The mandate to develop an MIS predated course numbering.

If the Division is unable to resolve this issue by September 1, I recommend that it be dealt with by the Commissioner and/or the legislature.

MD/bg

STATE OF FLORIDA
DEPARTMENT OF EDUCATION
TALLAHASSEE 32304

RALPH D. TURLINGTON
COMMISSIONER

June 1, 1978

MEMORANDUM

TO: Mike

FROM: Guery GD

SUBJECT: Institutional Credit Courses

At the moment, CNS has a problem with Institutional Credit Courses. In most cases, institutional credit is given for Occupational-Vo-Tech courses. Institutional credit does not appear on a transcript and in some cases is given so that a community college can compete with a local vocational school. In such a case, a community college can offer a vocational program at the same cost scale as that used at the Vo-Tech School.

I believe that CNS prefixes and numbers should be assigned to these courses. It is my belief that many courses given for institutional credit are really credit courses with the student paying a little more if he wants college credit. For example, IRCC offers college credit for some courses which are taught as institutional credit. In this case, the student pays an additional fee and is given college credit for courses he took as institutional credit

The following is an example of credit and institutional credit courses found in the IRCC catalog:

ACC 2001 (ATG 203) Principles of Accounting I - 3 credits
ACC 2021 (ATG 204) Principles of Accounting II - 3 credits
ACC 2022 (ATG 205) Principles of Accounting III - 3 credits

ACC 060 Principles of Accounting I - Institutional Credit 3
ACC 080 Principles of Accounting II - Institutional Credit 3
ACC 081 Principles of Accounting III - Institutional Credit 3

Some task forces have already picked up the institutional credit courses and assjgned them a prefix and number. I believe we should go ahead and equate all of institutional credit courses not covered in our present inventory.

GD/rb

STATE OF FLORIDA
DEPARTMENT OF EDUCATION
TALLAHASSEE 32304

RALPH D. TURLINGTON
COMMISSIONER

November 4, 1977

MEMORANDUM

TO: Mike

FROM: Guery G

SUBJECT: Courses with Institutional Credit

We need to have a policy decision made on how we should handle courses with institutional credit. In many cases institutional credit courses have been placed in the existing course file. In other cases they have been reserved for the Vo-Tech course file. John Muir believes institutional credit courses need not have CNS numbers assigned since they are completely internal at his institution (see attached memo). I have polled the CNS staff and have found mixed emotions on the subject.

Our possibilities are limited to:

(1) Place institutional credit courses in credit course file using the Occupational Task Force to handle all courses.

(2) Place institutional credit couress in the Vo-Tech file.

(3) Treat institutional credit courses in the same way that we treat community services courses.

I need to have a decision on this subject before my Occupational Task Force Meeting on November 17-18, 1977.

GLD/as

Attachment

INDIAN RIVER COMMUNITY COLLEGE
3209 Virginia Avenue
Fort Pierce, Florida 33450

OFFICE OF THE VICE PRESIDENT

November 1, 1977

To: Dr. Guery Davis

From: John W. Muir, Ph.D. JMuir

Subject: Missing Common Course Numbers

Attached is a list of all courses we are able to determine at this time do not have common course numbers developed or assigned.

As a response to your memorandum of October 26, 1977, please note the listing includes our courses in Cosmetology and Motorcycle Repair and others in addition.

Since we are going to press with our catalog immediately, it seems that the courses listed will have to appear in our new addition using a parenthetical expression of the old numbers.

I believe we may be able to solve the problem of our listings beginning on page 219 of the current catalog, "Institutional Credit Courses." It seems those courses need not have common course numbers assigned since they are completely and absolutely internal to Indian River only. That is, we do not cut any transcripts for those courses and there is therefore no relationship to any other institution. Perhaps this information will help in accomplishing the common course numbering task.

Thank you.

Attachments
/jef

cc: Dr. Michael DeCarlo

Serving Indian River - Martin - Okeechobee - Saint Lucie

# ENC - 000

## BROWARD

SEC - 0999 English

Special Services Program

The special Services Program is designed for underachievers and disadvantaged students. Significant features of the Program are its flexibility to meet individual student needs and the ability of students to participate in a full range of college activities. Details of the Program can be secured from the Director of the Program.

(Under - COURSES OF INSTRUCTION SPECIAL SERVICES - pg. 157)
Course Description:
This course includes a study of basis grammar and usage as it applies to reading and discussion of relevant literature. It will also encompass a survey of the fundamentals of composition.

3Sem.

## DAYTONA BEACH COMMUNITY COLLEGE

(New) EH 0093
Course Description:
Developmental English - To develop the students'ability to express his ideas in clear logical sentences that employ standard English, correct usage, structure and spelling. ( INST. CREDIT )

## INDIAN RIVER COMMUNITY COLLEGE
pg 164

ENG 0099
Course Description:
Remedial English - No credits - 3 hours lecture
A detailed consideration of the basics of grammar and such related elements as punctuation, capitalization and allied mechanics of writing with an emphasis on drill and individualized instruction. No prerequisite.

## JACKSONVILLE UNIVERSITY
pg 57

EH 0000
Course Description: - NonCredit
Practice in correct and effective writing for those students who need remedial work.

MIAMI-DADE COMMUNITY COLLEGE
Pg 88
ENG 0901 - Language Skills

Course Description: - 3 credits

An intensive study of the basic language skills that should enable a student the student to proceed without difficulty through a regular college program. Admission is determined by placement test scores. (3 hr lecture, an additional lab hour may be required.)

PASCO-HERNANDO COMMUNITY COLLEGE
Pg 61
+ENC 9000 (+ENG 901) Fundamentals in English

Course Description: 3 cr.

Involves individualized instruction in basic English skills. Through a variety of diagnostic measures, the student's entrance level of performance will be determined, and a program of studies to meet the individual needs will be pursued. A grade of "S" or "U" will be awarded upon the completion of the individual program. Four class hours.

FLORIDA KEYS COMMUNITY COLLEGE
(New)
College English Skills

Course Description: 3 cr.

A course of individualized instruction with emphasis on the basic mechanics of grammar, punctuation, spelling, and introduction to paragraph writing. Required of students whose test scores indicate a need for developing basic writing skills. Can be counted as an elective toward the Associate in Arts degree.

CHIPOLA JUNIOR COLLEGE
Pg 83
Compensatory English 3 cr.
ENC 1002
Course Description:

This course is designed to provide the instruction needed to remedy deficiencies in one or any number of areas of communication skills. Students whose test scores and/or secondary school records indicate a deficiency in communication skills may elect to take ENC 1002 or ENC 1005. Students are required to satisfactorily complete the total series of units of instruction and to make a satisfactory score on a final test over all units. The grade in the course is based solely on the final examination. However, those who fail to make a satisfactory score must review until they make a satisfactory grade. 3 semester hours credit.

```
      DISCIPLINE: 033-ENGLISH LANGUAGE & LITERATURE
           PREFIX: ENC-ENGLISH COMPOSITION
SEC
           COURSE: ENC-000   BASIC SKILLS
 A01                 PREREQUISITES: NONE
 B01                 INTENDED STUDENTS: N/A
 C01                 INTRO/ADVANCED: N/A
 D01                 MAJOR TOPICS: REMEDIAL PRACTICE IN WRITING, PRIOR TO FRESHMA
 D02                 COMPOSITION.
 E01                 SPECIAL REQUIREMENTS: N/A

           COURSE: ENC-002   COMPENSATORY ENGLISH
 A01                 PREREQUISITES: NONE
 B01                 INTENDED STUDENTS: N/A
 C01                 INTRO/ADVANCED: N/A
 D01                 MAJOR TOPICS: N/A
 E01                 SPECIAL REQUIREMENTS: N/A

           COURSE: ENC-005   BASIC COMPOSITION SKILLS
 A01                 PREREQUISITES: NONE
 B01                 INTENDED STUDENTS: N/A
 C01                 INTRO/ADVANCED: N/A
 D01                 MAJOR TOPICS: BASIC SENTENCE STRUCTURE WITHIN THE PARAGRAPH.
 D02                 STUDENTS WITH INADEQUATE PREPARATION FOR COLLEGE-LEVEL
 D03                 COMMUNICATION SKILL COURSES.
 E01                 SPECIAL REQUIREMENTS: N/A

           COURSE: ENC-006   BASIC COMMUNICATION SKILLS
 A01                 PREREQUISITES: NONE
 B01                 INTENDED STUDENTS: N/A
 C01                 INTRO/ADVANCED: N/A
 D01                 MAJOR TOPICS: DRILL IN GENERAL STUDY SKILLS, READING, LISTEN
 D02                 NOTE-TAKING, AND QUESTION-ANSWERING.
 E01                 SPECIAL REQUIREMENTS: N/A

           COURSE: ENC-007   BASIC COMMUNICATION SKILLS I[illegible]
 A01                 PREREQUISITES: NONE
 B01                 INTENDED STUDENTS: N/A
 C01                 INTRO/ADVANCED: N/A
 D01                 MAJOR TOPICS: REMEDY OF DEFICIENCIES IN ONE OR ANY NUMBER OF
 D02                 OF COMMUNICATION SKILLS.
 E01                 SPECIAL REQUIREMENTS: N/A

           COURSE: ENC-008   BASIC COMMUNICATION SKILLS IV
 A01                 PREREQUISITES: NONE
 B01                 INTENDED STUDENTS: N/A
 C01                 INTRO/ADVANCED: N/A
 D01                 MAJOR TOPICS: N/A
 E01                 SPECIAL REQUIREMENTS: N/A

           COURSE: ENC-009   BASIC COMMUNICATION SKILLS V
 A01                 PREREQUISITES: NONE
 B01                 INTENDED STUDENTS: N/A
 C01                 INTRO/ADVANCED: N/A
 D01                 MAJOR TOPICS: N/A
 E01                 SPECIAL REQUIREMENTS: N/A
```

## ENGLISH COMPOSITION

ENC 000-099 INTRODUCTORY, ENTRY LEVEL COURSES - BROAD DISCIPLINE AREA

ENC 000-005 BASIC SKILLS

| INST ABBREV | ACC DATE | CHANGE DATE | SYSTEM | INST PRE-NBR / TITLE (SYSTEM / INSTITUTIONAL) | USOE-NMHR HDBK-VI | CREDIT-TERM | | HEGIS | PROJECT USE ONLY |
|---|---|---|---|---|---|---|---|---|---|
| | | | ENC-000 | BASIC SKILLS | | | | 1501 | |
| BRU | | | | SEC -0999 ENGLISH | | 003.0 | S | | 1500ENC9000 01 |
| DBCC | 770617 | 780110 | | EH -0093 DEVELOPMENTAL ENGLISH | | 003.0 | S | | 1475ENC0000 01 |
| IRCC | | 780110 | | ENG -0099 REMEDIAL ENGLISH | | 000.0 | S | | 1493ENC0000 01 |
| JAXU | | | | EH -0000 WRITING LABORATORY | | 000.0 | S | | 1495ENC0000 01 |
| LCCC | | 780110 | | APC -0001 APPLIED COMMUNICATIONS | | 003.0 | S | | 1501ENC0000 01 |
| MDCC | | | | ENG -0901 LANGUAGE SKILLS | | 003.0 | S | | 1506ENC9000 01 |
| PHCC | | | | ENG -0901 FUNDAMENTALS IN ENGLISH | | 003.0 | S | | 10652ENC9000 01 |
| FKCC ✓ | | | | New Course 100 College Eng. Skills (4/20) | | | | | |
| | | | ENC-002 | COMPENSATORY ENGLISH | 0000000000 | | | 1501 | |
| CJC | | 770816 | | EN -0110 INDIVIDUALIZED COMPENSATORY ENGLISH | | 01-3 | S | | 1472ENC1002 02 |
| | | | ENC-005 | BASIC COMPOSITION SKILLS | 0504020000 | | | 1501 | |
| CJC | | | | EN -0100 BASIC COMPOSITION | | 003.0 | S | | 1472ENC1005 01 |
| FJCJ | | | | ENG -0100 INTRODUCTION TO COMPOSITION | | 003.0 | S | | 1484ENC1005 01 |
| LCCC | | 780110 | | APC -0002 APPLIED COMMUNICATIONS | | 001.0 | S | | 1501ENC0005 01 |
| | | | ENC-006 | BASIC COMMUNICATION SKILLS | 0504020000 | | | 1501 | |
| CJC | | | | EN -0106 DRILL IN BASIC COMMUNICATION SKILLS | | 002.0 | S | | 1472ENC1006 01 |
| LCCC | | 780110 | | APC -0003 APPLIED COMMUNICATIONS | | 003.0 | S | | 1501ENC0006 01 |
| | | | ENC-007 | BASIC COMMUNICATION SKILLS III | 1404000000 | | | 1501 | |
| LCCC | | 780110 | | APC -0004 APPLIED COMMUNICATIONS | | 001.0 | S | | 1501ENC00[illegible] |
| | | | ENC-008 | BASIC COMMUNICATION SKILLS IV | 1404000000 | | | 1501 | |
| LCCC | | 780110 | | APC -0005 APPLIED COMMUNICATIONS | | 003.0 | S | | 1501ENC0008 01 |

# FLORIDA

## DEPARTMENT OF EDUCATION

## STATEWIDE COURSE NUMBERING SYSTEM

The Florida Statewide Course Numbering Project encompasses 9 public universities, 28 public community colleges, 26 area vocational centers, 5 private colleges and universities, 156 faculty discipline task forces including 600 faculty members, and a 54,800 course inventory ranging from the postsecondary occupational through the graduate and professional school levels.

Task forces concern themselves with both the conventional academic disciplines and the related technologies, develop classification and subclassification systems for their areas, sort existing courses into the classification system, and order them in terms of chronology, relative complexity, or simply by commonality of domains of knowledge. A common prefix and numbering system is then assigned distinguishing courses which are substantively equivalent and unique. All counterpart institutional departments review this work; hence, the final results reflect the combined efforts of the task force members and their colleagues.

Common prefixes and numbers assigned by faculty to graduate and professional courses indicate that courses are offered in given domains of knowledge. They do not indicate that courses are substantively comparable. The receiving institutional school or department makes the final evaluation as to the comparability. The same approach is taken to studio courses in art, dance, acting, and vocal and instrumental music courses. The performing arts continue to rely upon their own auditions and recitals.

The purposes and advantages of such a system are as follows: (1) provides a common classification system for all disciplinary and interdisciplinary categories and subcategories based on the professional judgements of the faculty; (2) provides a complete and reasonably accurate inventory of all postsecondary courses and programs; (3) provides a matrix of all institutional offerings in each disciplinary and interdisciplinary area based on subject matter; (4) provides an integral element of the state's management information system and program, planning, budgeting, and evaluating system; (5) provides a basis for program allocation among the several sectors; (6) provides a basis for formulating rationales for alternative programs within disciplines so that unwarranted comparisons will not be made; (7) provides a basis for the effective and efficient use of limited resources and for the equitable funding of programs; (8) provides an unparalleled forum for statewide articulation; (9) increases the effectiveness of admissions officers, registrars, academic and career counselors, teacher certification personnel and placement and follow-up officers; (10) provides for high school counselors in one document complete information concerning the variations in offerings in different postsecondary education discipline departments and institutions; (11) facilitates the comparison by students of the nature and scope of varying institutional programs; (12) minimizes the frustration of students resulting from institutional errors in transcript evaluation, program planning, and advising; (13) provides for faculty a communicative device for identifying any lack of comparability between community college offerings and lower division university offerings; (14) provides for trustees and legislators a clearer and more accurate framework from which to assess the current status and direction of postsecondary education.

Legislation has been passed which provides that the Course Numbering System is descriptive, not prescriptive, and that courses may not be standardized. Further, a Statewide Course Numbering Policy Council has been established to monitor the implementation of the system, its maintenance, and its continuing refinement.

This Council is chaired by a member of the teaching faculty with its membership predominantly faculty. Since a major concern related to information technology is that those who generate the data will be separated from it and from the interpretations derived, provision has been made for continuing input and involvement by the 110 discipline task forces.

Additionally, provision has been made for annual meetings of ad hoc committees of the discipline task forces. Those committees will review the status of discipline inventory, classification system, course comparability and uniqueness, articulation and other problems, and propose and take appropriate action. In short, it is the faculties who will establish and maintain the inventory of what is, what is alike, and what is different.

Although this is essentially a public sector project, six private colleges and universities have been involved on a voluntary basis. It is clear that the matrices of courses will enable a private institution to compare its inventory with those of other private and public institutions in the same geographical area. This should enable institutions and agencies to determine existing areas of overlap and duplication. This information will be of value to State Councils of Postsecondary Education (1202 Commissions) and assist them in ascertaining the status and needs of education from a wider perspective.

The new Course Numbering System will appear in all public community college and university catalogs for the academic year 1977-78. All postsecondary vocational courses in area centers and schools will be completed the following year. By the beginning of the academic year 1978-79, all public community colleges, universities, and agencies shall have completed conversion of all data systems and all reporting systems, including transcripts, to the Statewide Course Numbering System. Existing institutional course prefixes and numbers will no longer be included in institutional catalogs but will be retired to history files. Conversion tables of old and new prefixes will be made available to faculty and students during the transaction period and for about two more years.

(Statement To Be Included in Catalogs of Florida's
Public Community Colleges & Universities)

## Florida's Statewide Course Numbering System

The course numbers appearing in the catalog are part of a statewide system of prefixes and numbers developed for use by all public postsecondary and participating private institutions in Florida. One of the major purposes of this system is to make transferring easier by identifying courses which are equivalent, no matter where they are taught in the state. All courses designated as equivalent will carry the same prefix and last three digits.

The classifying and numbering of courses was done by community college and university faculty members in each academic discipline. Their work was reviewed by faculty members in all of Florida's postsecondary institutions who made suggestions and criticisms to be incorporated into the system.

The course numbering system is, by law, descriptive and not prescriptive. It in no way limits or controls what courses may be offered or how they are taught. It does not affect course titles or descriptions at individual schools. It seeks only to describe what is being offered in postsecondary education in Florida in a manner that is intelligible and useful to students, faculty and other interested users of the system.

The course numbering system was developed so that equivalent courses could be accepted for transfer without misunderstanding. Each public institution is to accept for transfer credit any course which carries the same prefix and last three digits as a course at the receiving institution. For example, if a student has taken SOC _000 at a community college, he cannot be required to repeat SOC _000 at the school to which he transfers. Further, credit for any course or its equivalent, as judged by the appropriate faculty task force and published in the course numbering system, which can be used by a native student to satisfy degree requirements at a state university can also be used for that purpose by a transfer student regardless of where the credit was earned.

It should be noted that a receiving institution is not precluded from using non-equivalent courses for satisfying certain requirements.

### General Rule for Course Equivalencies

All undergraduate courses bearing the same alpha prefix and last three numbers (and alpha suffix, if present) have been agreed upon to be equivalent. For example, an introductory course in sociology is offered in over 40 postsecondary institutions in Florida. Since these courses are considered to be equivalent, each one will carry the designator SOC _000.

### First Digit

The first digit of the course number is assigned by the institution, generally to indicate the year it is offered--i.e., 1 indicates freshman year, 2 indicates sophomore year. In the sociology example mentioned above, one school which offers the course in the freshman year will number it SOC 1000; a school offering the same course in the sophomore year will number it SOC 2000. The variance in first numbers does not affect the equivalency. If the prefix and last three digits are the same, the courses are substantively equivalent.

### Titles

Each institution will retain its own title for each of its courses. The sociology courses mentioned above are titled at different schools "Introductory Sociology," "General Sociology," and "Principles of Sociology." The title does not affect the equivalency. The courses all carry the same prefix and last three digits; that is what identifies them as equivalent.

### Lab Indicators

Some courses will carry an alpha suffix indicating a lab. The alpha suffixes "L" and "C" are used as follows to indicate laboratories:

"L" means either (a) a course, the content of which is entirely laboratory or (b) the laboratory component of a lecture-lab sequence in which the lab is offered at a different time/place from the lecture course.

"C" means a combined lecture-lab course in which the lab is offered in conjunction with the lecture at the same time/same place.

| | | |
|---|---|---|
| Examples: Marine Biology | OCB _013 | (lecture only) |
| | OCB _013L | (lab only) |
| Marine Biology with Lab | OCB _013C | (lecture & lab combined) |

Therefore, OCB _013C is equivalent to OCB _013 plus OCB _013L.

## Equivalency of Sequences

In certain cases, sequences of courses in a given discipline are equivalent rather than the individual courses which make up these sequences. (For example, MAC _132, _133, _134). In these cases the subject matter topics may not be taught in the same sequence, course by course, in several institutions; however, upon completion of the full sequence at any of the several institutions, students have completed substantively equivalent content. These sequences are clearly identified in the Course Equivalency Profiles.

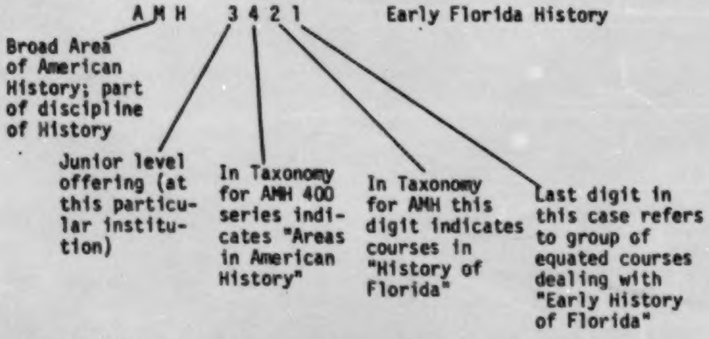
## Explanation of Prefixes and Numbers

Prefixes and numbers in the course numbering system are not chosen at random; they are designed to describe course content in an organized fashion within a classification system developed for each subject matter area.

Generally, each of the major classifications in a discipline is represented by a three-alpha prefix. In some cases, one three-alpha prefix has been sufficient for the entire discipline. A discipline may use as many prefixes as necessary to accommodate its major classifications. The logic of the system allows it to be infinitely expandable with minimal disruption to existing numbers.

History, for example, has seven prefixes: AFH, African History; AMH, American History; ASH, Asian History; EUH, European History; HIS, History-General; LAH, Latin American History, and WOH, World History. All history courses in the state will carry one of these prefixes.

A more specific example is AMH 3421.


A M H
3 4 2 1
Early Florida History
Broad Area of American History; part of discipline of History
Junior level offering (at this particular institution)
In Taxonomy for AMH 400 series indicates "Areas in American History"
In Taxonomy for AMH this digit indicates courses in "History of Florida"
Last digit in this case refers to group of equated courses dealing with "Early History of Florida"

(Local titles are used for each particular course. The last three numbers are used to indicate equivalency.)

The number of prefixes is a function of the extent of the subclassifications of the given subject matter area.

When this work began there were 920 alpha prefixes in existence; with the new system there are now 370. As in most states there existed no uniformity in Florida's prefixes as indicated by the example below:

| Discipline | Before | After |
|---|---|---|
| History | 20 | 7 |
| Sociology | 24 | 3 |
| Philosophy | 23 | 4 |
| Religion | 17 | 1 |
| Mathematics | 50 | 10 |
| English | 39 | 6 |
| Nutrition | 38 | 4 |

Although it is true that a student majoring at one of the 38 participating institutions may have had only one alpha prefix for his major (e.g., HY-History) and now he will have seven, all prefixes in the same subject matter areas will be the same throughout these institutions.

A complete inventory of taxonomic listings, equivalent and unique courses, has been made available to each academic department of every institution in the state. Students, through their local advisors, should use this information in designing programs which will transfer smoothly.

## Exceptions to the Rule For Equivalencies

The following are exceptions to the general rule for course equivalencies:

A. All graduate level courses (except those which the faculty and their reviewing colleagues have determined to be substantively equivalent with undergraduate courses) are not automatically transferable.

B. All numbers which have a second digit of 9 (Ex.: ART 2905) are "place keeper" numbers for such courses as directed independent study, thesis hours, etc. Courses with _900 numbers must be evaluated individually and are not automatically transferable.

C. All internships, practicums, clinical experiences and study abroad courses, whatever numbers they carry, are not automatically transferable.

D. Performance or studio courses in Art, Dance, Theatre, and Music are not automatically transferable but must be evaluated individually.

## Authority For Acceptance of Equivalent Courses

The following amendment to Section 6A-10.24(7) of the Articulation Agreement was approved by the Community Colleges Council on Instructional Affairs, the Presidents Council, the Division of Community Colleges, the State University System Council of Vice Presidents for Academic Affairs the Council of Presidents and the Board of Regents. It was adopted by the State Board of Education on March 7, 1978: ". . . Students who earn credit in a course determined by the appropriate faculty task force to be equivalent and which is published in the state-wide course numbering system, and who later transfer to another institution within the system can transfer and use the credit in that course at the receiving institution for the same purpose as that course can be used by native students who complete the course at the receiving institution."

## Statewide Course Numbering System

## Institutional Applications Of The Course Equivalency And Distribution Directory

1. Admissions Officers/Registrars
   - a. Facilitates admissions counseling.
   - b. Facilitates evaluation of transcripts of transfer students and placement of these students in courses.
2. Academic Advisors/Counselors/Students
   - a. Facilitates self-counseling and planning by students.
   - b. Facilitates counseling of transfer students with regard to comparability of courses between institutions.
   - c. Facilitates the identification of all equivalent courses for certification purposes.
3. Academic Department Heads/Faculty
   - a. Provides an up-to-date inventory of the courses in each subject matter area.
   - b. Provides a data base for the study of subject matter area trends by institution, region or on a statewide basis.
   - c. Reveals the degree of comparability of associate degree program courses with those offered at the universities.
   - d. Provides a means by which problems such as articulation and overlap can be identified, so that proposals for corrective action can be initiated.
   - e. Provides a data base for administrators of institutional consortia.
4. Curriculum Committees/Self Study Committees
   - a. Provides one basis for assessing the extent to which community college courses are preparing students to continue their studies.
   - b. Provides a data base for exploring the desirability of establishing consortia among institutions.
5. Boards of Trustees (Community Colleges)
   - a. Provides boards with data concerning the degree of comparability of community college associate degree program courses and lower division university courses.
   - b. Provides boards with data which will assist in determining the extent of unwarranted institutional overlap, duplication, and proliferation.

c. Provides boards with data concerning the degree of the overlap and duplication of community college and university courses.

d. Provides boards with data which will enable them to determine whether or not corrective action has been taken and when.

# Appendix B

## Program and Award Data
## For Florida's 28 Community Colleges

## Occupational Programs in Florida's 28 Community Colleges

TABLE 12 OCCUPATIONAL PROGRAMS

KEY:
AS - Associate in Science Degree
C - Certificate

| | Brevard | Broward | Central Florida | Chipola | Daytona Beach | Edison | Florida JC @ Jax. | Florida Keys | Gulf Coast | Hillsborough | Indian River | Lake City | Lake-Sumter | Manatee | Miami-Dade | North Florida | Okaloosa-Walton | Palm Beach | Pasco-Hernando | Pensacola | Polk | St. Johns River | St. Petersburg | Santa Fe | Seminole | South Florida | Tallahassee | Valencia |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AGRICULTURE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Agribusiness | | | AS<br>C | | | | | | | AS | AS<br>C | | | | | | | | AS | | AS | | | | | | | |
| Agriculture | | | | | | | | | | | AS | | | | | C | | | | | | | | | | AS | | |
| Animal Science | | | | | | | | | | | AS | | | | | | | | | | | | | | | | | |
| Citrus Technology | | | | | | | | | | | AS | | | | | | | | | | AS<br>C | | | | | | | |
| Crop Production | | | | | | | | | | | AS<br>C | | | | | | | | | | | | | | | | | |
| Farm Coop Training | | | | C | | | | | | | | | | | | | | | | | | | | | | | | |
| Farm Management | | | | | | | | | | | | | | | | | | | | | | | | AS<br>C | | | | |
| Forestry | | | | | | | | | | | | AS<br>C | | | | | | | | | | | | | | | | |
| Golf Course Operation | | | | | | | | | | | | AS<br>C | | | | | | | | | | | | | | | | |
| Horticulture | | | | | AS<br>C | | | | | | | AS | | | | | | | | AS | AS<br>C | | | C | C | C | | AS |
| Landscape Technology | | AS | | | | | | | | | | AS | | | AS | | | | | | | | | | | | | |
| Nursery Operations | | | | | | | | | | | | | | | | C | | | | | | | | | | | | |
| Park Technology | | | | | | | | | | | | AS | | | | | | | | | | | | AS<br>C | | | | |
| Ranch Management | | | | | | | | | | | AS | | | | | | | | | | | | | | | | | |
| DISTRIBUTIVE EDUCATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Banking | AS | AS<br>C | | | AS | AS | AS | | AS | AS | AS | | | AS | AS<br>C | | | AS | AS | AS | AS | | AS | | | | | AS |
| Distributive Education | | | | C | | | | | | | | | | | | | | | | | | | | | AS | | | |
| Fashion | | AS | | | AS | | AS | | | | | | | | AS<br>C | | | | | AS | | | AS | | | | | |

SOURCE: AA-1

TABLE 12 OCCUPATIONAL PROGRAMS (Continued)

KEY:
AS - Associate in Science Degree
C - Certificate

| | Brevard | Broward | Central Florida | Chipola | Daytona Beach | Edison | Florida JC @ Jax. | Florida Keys | Gulf Coast | Hillsborough | Indian River | Lake City | Lake-Sumter | Manatee | Miami-Dade | North Florida | Okaloosa-Walton | Palm Beach | Pasco-Hernando | Pensacola | Polk | St. Johns River | St. Petersburg | Santa Fe | Seminole | South Florida | Tallahassee | Valencia |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DISTRIBUTIVE EDUCATION Continued: | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Food Service | | C | | | | | | | | AS | AS | | | AS<br>C | AS | | | AS | AS<br>C | | | | | | | | | |
| Hospitality | AS | AS | | | AS | | AS | | AS<br>C | AS | AS | | | AS<br>C | AS | | | AS | | | AS<br>C | | AS | | | | | AS |
| Insurance | | AS | | | | | AS | | | | C | | | | AS | | | | | C | | | | | | | | |
| Marketing | AS | AS<br>C | C | | AS | | AS<br>C | | AS | AS<br>C | AS | C | | AS<br>C | AS<br>C | | | AS<br>C | | | | C | AS | AS<br>C | AS<br>C | | | AS |
| Purchasing | | AS | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Real Estate | AS | AS | | | | | AS | C | AS<br>C | | AS | AS<br>C | C | AS<br>C | AS<br>C | | AS<br>C | | AS<br>C | | C | | AS<br>C | | | | | AS |
| Transportation | | | | | | | AS | | | | | | | | AS | | | | | | | | | | | | | |
| Wholesaling | | | | | | | | | | AS<br>C | | | | | | | | | | | | | | | | | | |
| HEALTH OCCUPATIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cardiovascular Technology | | | | | | | | | | | | | | | | | | | | | | | | | AS | | | |
| Cooperative Health Education | | | | | | | | | | | | | | | | | | | | C | | | | | | | | |
| Dental Assisting | C | AS<br>C | | | | | C | | AS<br>C | | AS<br>C | | | | | | | C | | AS<br>C | | | | AS<br>C | | | | |
| Dental Hygiene | | | | | | | AS | | | | | | | | AS | | | AS | | AS | | | AS | AS | | | AS | AS |
| Dental Lab Technology | | | | | | | | | | | AS | | | | | | | AS | | AS<br>C | | | | | | | | |
| Dietetic Technology | | AS | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Electroencephalographic Technology | | | | | | | | | | | | | | | AS | | | | | | | | | | | | | |
| Emergency Medical Technology | C | AS | | AS<br>C | | AS | AS | | AS<br>C | C | AS | | | | C | C | | C | AS<br>C | C | C | | AS<br>C | C | | C | C | |
| Health Care Management | | | | | | | | | | | | | | | C | C | | | | | | | AS | | | | | |

SOURCE: AA-1

TABLE 12 OCCUPATIONAL PROGRAMS (Continued)

KEY:
AS - Associate in Science Degree
C - Certificate

| | Brevard | Broward | Central Florida | Chipola | Daytona Beach | Edison | Florida JC @ Jax. | Florida Keys | Gulf Coast | Hillsborough | Indian River | Lake City | Lake-Sumter | Manatee | Miami-Dade | North Florida | Okaloosa-Walton | Palm Beach | Pasco-Hernando | Pensacola | Polk | St. Johns River | St. Petersburg | Santa Fe | Seminole | South Florida | Tallahassee | Valencia |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HEALTH OCCUPATIONS Continued: | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Medical Assisting | | AS<br>C | | | | | C | | | | | | | | | | | | | | | | | AS | | | | |
| Medical Laboratory Technology | AS | AS | | | | | AS<br>C | | | | AS | | | | AS | | | AS | | | | | AS | | | | | AS |
| Medical Records | | AS | | | | | | | | AS<br>C | | | C | | AS | | | | | | | | | | | | | |
| Mental Health | AS | | | AS | AS | AS<br>C | | | AS | | | AS | | | AS | | | AS | | | C | | AS | | | | | |
| Mortuary Science | | | | | | | | | | | | | | | AS | | | | | | | | | | | | | |
| Nursing (Aide) | C | | | | | | C | | | | C | | | | | | | | | | | | | C | C | C | | |
| Nursing (LPN) | C | | | C | C | | C | | | | C | | | | C | C | | | | C | | | | C | C | C | | |
| Nursing (RN) | AS | AS | AS | | AS | AS | AS | AS | AS | AS | AS | AS | AS | AS | AS | | | AS | AS | AS | AS | | AS | AS | | | AS | AS |
| Occupational Therapy | | | | | | | | | | | | | | | | | | AS | | | | | | | | | | |
| Operating Room Technology | | | | | C | | C | | | | | | | | C | | | | | | | | | | | | | |
| Optometric Technology | | | | | | | | | | AS | | | | | AS | | | | | | | | AS | | | | | |
| Physical Therapy | | AS | | | | | | | | | | | | | AS | | | | | | | | AS | | | | | |
| Radiology | AS | AS<br>C | AS<br>C | | | | | | | AS | AS | | | AS | AS | | | AS | | AS | | | | AS | | | AS | |
| Respiratory Therapy | | AS | | | C | | AS | | | C | | | | | AS<br>C | | | | | AS<br>C | | | AS | AS | | | | AS |
| Veterinary Medical Assisting | | AS | | | | | | | | | | | | | | | | | | | | | AS | | | | | |
| Ward Clerk | | | | | | | | | | | | | | | | | | | | C | | | | | | C | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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SOURCE: AA-1

TABLE 12 OCCUPATIONAL PROGRAMS (Continued)

KEY:
AS - Associate in Science Degree
C - Certificate

| | Brevard | Broward | Central Florida | Chipola | Daytona Beach | Edison | Florida JC @ Jax. | Florida Keys | Gulf Coast | Hillsborough | Indian River | Lake City | Lake-Sumter | Manatee | Miami-Dade | North Florida | Okaloosa-Walton | Palm Beach | Pasco-Hernando | Pensacola | Polk | St. Johns River | St. Petersburg | Santa Fe | Seminole | South Florida | Tallahassee | Valencia |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HOME ECONOMICS | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Child Care | AS | C | AS<br>C | | AS | | AS | | AS | C | AS<br>C | | | | | | AS<br>C | AS<br>C | | | | | | AS | C | C | | AS |
| Fashion | AS | | | | AS | | | | | | AS | | | | AS<br>C | C | | AS | | | | | | AS | AS<br>C | | | |
| Food Service | AS | | | | | | AS<br>C | | | | | | | | | | AS<br>C | | | AS | | | | C | | | | |
| Home Economics | | | | | | | | | AS | | AS | | | | AS | | | AS | | | | | | | | | | |
| Upholstery | C | | | | | | | | | | | | | | | | | | | | | | | | C | | | |
| OFFICE OCCUPATIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Accounting/Bookkeeping | C | AS<br>C | | | | AS | AS | | AS<br>C | AS<br>C | | | | | AS<br>C | | | | AS | AS<br>C | | C | AS | AS<br>C | | | | |
| Business, Administration/Management | AS | AS | AS | | | C | | | | AS<br>C | | AS | AS | | AS<br>C | | AS | | | AS | | AS | AS | AS | | | | AS |
| Business, General | | | AS | AS | AS | AS<br>C | AS | AS<br>C | AS<br>C | | | AS | AS | AS | | | | AS | AS<br>C | AS<br>C | | AS | | AS<br>C | | AS | | |
| Cashiering | | | | | | | | | | | | | | | | | | | | C | | | | | | | | |
| Clerical | | C | C | | | AS<br>C | C | C | | C | AS<br>C | C | | | AS | C | AS<br>C | | | C | AS<br>C | C | AS | AS<br>C | | C | C | |
| Court Reporting | | AS | | | C | | | | | | | | | | AS | | | | AS | | | | | | | | | |
| Data Processing | AS | AS<br>C | | AS | AS | AS<br>C | AS<br>C | | AS | AS<br>C | AS | AS<br>C | | AS | AS<br>C | | AS<br>C | AS<br>C | | AS<br>C | AS<br>C | AS | AS<br>C | AS | AS<br>C | | AS | AS |
| Income Tax Preparation | | C | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Key Punch | | | | | | | | | | | | | | | | | | | | C | | | | C | | | | |
| Office Management | | | | | | | | | | | AS | | | | | | | | | | AS | | | | | | AS | |
| Secretarial, Executive | | AS | | | | | | AS | | | AS | AS | AS | | | | | | | | | C | AS | | | | | AS |
| Secretarial, General | AS | AS<br>C | AS<br>C | AS | | AS<br>C | AS | C | AS<br>C | AS | AS<br>C | C | | AS<br>C | AS<br>C | C | AS | AS | AS | AS | | | | AS<br>C | AS<br>C | AS | AS | |

SOURCE: AA-1

TABLE 12 OCCUPATIONAL PROGRAMS (Continued)

KEY:
AS - Associate in Science Degree
C - Certificate

| | Brevard | Broward | Central Florida | Chipola | Daytona Beach | Edison | Florida JC @ Jax. | Florida Keys | Gulf Coast | Hillsborough | Indian River | Lake City | Lake-Sumter | Manatee | Miami-Dade | North Florida | Okaloosa-Walton | Palm Beach | Pasco-Hernando | Pensacola | Polk | St. Johns River | St. Petersburg | Santa Fe | Seminole | South Florida | Tallahassee | Valencia |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFFICE OCCUPATIONS Continued: | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Secretarial, Legal | | | AS | | | | | AS | | AS | AS | | AS | | | | | | | AS<br>C | AS | AS | AS | | | | | AS |
| Secretarial, Medical | | | AS | | | | | AS | | AS | AS | | AS | | | | | | | AS<br>C | AS | | | AS | | | | AS |
| Stenography | C | | | | | C | C | | | | C | | | | | | C | C | | AS<br>C | | C | | | | | | |
| Word Processing | | | | | | | | | | C | | | | | | | AS<br>C | | | | | | | | | | | |
| TRADE AND INDUSTRIAL OCCUPATIONS: | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Air Conditioning/Refrig./Heating | AS<br>C | AS | C | | C | | C | | AS | | AS<br>C | | | | AS<br>C | | AS<br>C | AS<br>C | | AS<br>C | | | | AS | C | C | | AS |
| Air Traffic Control | | AS | | | | | | | | | | | | | AS<br>C | | | | | | | | | | | | | |
| Appliance Repair | C | | | C | | | C | | | | | | | | | | | | | AS<br>C | | | | | | | | |
| Architecture Technology | | AS | | | C | | AS | | | AS | | | | AS<br>C | AS | | | | | AS | | | AS<br>C | | | | | AS |
| Automotive Body Repair | | | C | | | | C | | | | AS<br>C | C | | | | | AS<br>C | | | AS<br>C | | | | | | C | | |
| Automotive Mechanics | C | | C | C | AS<br>C | | C | | | | AS<br>C | C | | | | C | AS<br>C | | | AS<br>C | | | | AS | C | C | | AS |
| Aviation Technology | | AS | | | | | | | AS<br>C | | | | | AS | AS<br>C | | | | | AS | AS | | AS | AS | | | | |
| Broadcasting | | | | | | | | | AS | | | | | | AS<br>C | | | | | | AS | | | | | | | |
| Building Construction | C | C | AS<br>C | | AS | | | | AS | C | AS | | | | AS<br>C | | | AS | AS<br>C | | AS | | | AS | AS | | | |
| Cabinetmaking | | | | | | | C | | | | | | | | | | | | | | | | | | | | | |
| Carpentry | | | C | C | | | C | | | | | | | | | | | | | | | | | C | C | C | | |
| Commercial Art | | AS | | | AS | | | AS | | | | | AS | | AS<br>C | | | AS | | AS<br>C | | AS | | AS | | | | AS |
| Cosmetology | C | | C | C | C | | C | | | | AS | C | | | | C | | | | AS<br>C | | | | C | | C | | |

SOURCE: AA-1

TABLE 12 OCCUPATIONAL PROGRAMS (Continued)

Key:
AS - Associate in Science Degree
C - Certificate

| | Brevard | Broward | Central Florida | Chipola | Daytona Beach | Edison | Florida JC @ Jax. | Florida Keys | Gulf Coast | Hillsborough | Indian River | Lake City | Lake-Sumter | Manatee | Miami-Dade | North Florida | Okaloosa-Walton | Palm Beach | Pasco-Hernando | Pensacola | Polk | St. Johns River | St. Petersburg | Santa Fe | Seminole | South Florida | Tallahassee | Valencia |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TRADE AND INDUSTRIAL OCCUPATIONS Cont: | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dance | | | | | | | | | | | | | | | | | | | | | | AS | | | | | | |
| Diesel Mechanics | | | | | | | C | | | | | | | | | | | | | | | | | | C | C | | |
| Drafting | AS | | AS | C | AS<br>C | C | AS<br>C | | AS | | AS<br>C | C | | AS<br>C | AS<br>C | C | AS<br>C | AS<br>C | | AS<br>C | AS | AS<br>C | AS<br>C | AS | C | C | | AS |
| Electrical Wiring Technology | AS | | | C | | | C | | | AS | | | C | AS | AS | | | | | AS<br>C | | | | C | C | | | |
| Electro-Mechancial Technology | | | | | | | | | AS | | | | | | AS | | | | | | | | | | | | | AS |
| Electronics | AS | AS | AS<br>C | C | AS<br>C | AS<br>C | C | AS | AS | AS | AS | | | AS<br>C | AS<br>C | | AS<br>C | AS | | AS | AS | AS | AS | AS<br>C | AS<br>C | C | | AS |
| Engineering Technology, Civil | AS | AS | AS<br>C | | AS | C | AS | | AS | AS | | | C | AS<br>C | AS<br>C | | | AS<br>C | AS | AS | AS | | C | | | | AS | AS |
| Engineering Technology, Electrical | | AS | | AS<br>C | | | AS | | | | | | AS | | | | | | | | | | | | | | | |
| Engineering Technology, Industrial | | | | | | | | | | | | | | AS | AS | | | | | | | | | | | | | |
| Engineering Technology, Mechanical | AS | AS | | | | | AS | | | | | | | | | | | | | | | | | | | | | |
| Environmental Science | AS | AS | | | | | | AS | | AS | | | | AS | AS<br>C | | | | AS | AS | | | | AS | | | | |
| Fire Science Technology | AS | AS<br>C | | | AS | AS | AS<br>C | | AS<br>C | AS<br>C | AS | | | | AS | | AS | AS | | AS | C | | AS<br>C | AS<br>C | C | | | AS<br>C |
| Flight Attendant Technology | | | | | | | | | | | | | | AS | AS | | | | | | | | | | | | | |
| Gasoline Engine Technology | C | | | C | C | | C | AS | | | | | | | AS | | | | | | | | | C | | | | |
| Industrial Arts Technology | | | | | | | | | | | AS | C | | | AS | | | | | | | | | | AS | | | |
| Instrumentation Technology | | | | | | | | | | | | | | | AS | | | | | AS | AS | | | | | | | |
| Interior Design | | | | | | | | | | | | | | | AS | | | AS | | | | | AS<br>C | | AS | | | |
| Legal Assisting | | | | | | | AS | | | AS<br>C | | | | AS | AS | | | | | | AS | | | AS | | | | AS |

SOURCE: AA-1

TABLE 12 OCCUPATIONAL PROGRAMS (Continued)

KEY:
AS - Associate in Science Degree
C - Certificate

| | Brevard | Broward | Central Florida | Chipola | Daytona Beach | Edison | Florida JC @ Jax. | Florida Keys | Gulf Coast | Hillsborough | Indian River | Lake City | Lake-Sumter | Manatee | Miami-Dade | North Florida | Okaloosa-Walton | Palm Beach | Pasco-Hernando | Pensacola | Polk | St. Johns River | St. Petersburg | Santa Fe | Seminole | South Florida | Tallahassee | Valencia |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TRADE AND INDUSTRIAL OCCUPATIONS Cont: | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Library Technology | AS | | | | | | | | | | | | | | | | | AS | | | AS | | | | | | | |
| Machine Shop Technology | C | | C | | C | | C | | | | | C | | | | | | | | AS<br>C | | | | | | | | |
| Maintenance Technology | | | | | | | | | | | | | | | | | | | | C | | | | | | | | |
| Management, Industrial | AS | | | | | | | | AS<br>C | AS | | | | AS | | | | | | | | | | | | | | |
| Marine Technology | C | | | | C | | C | AS<br>C | AS | AS<br>C | | | | | AS | | | | | | | | | | | | | |
| Masonry | C | | C | C | AS | | C | | | | | C | | | | C | AS<br>C | | | | | | | | | | | |
| Media Technology | | | | | | | | | AS | | | | | | | | | | | | AS | | | AS | | | | |
| Meteorology Technology | | | | | | | | | | | | | | | AS | | | | | | | | | | | | | |
| Motion Picture Technology | | C | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Music | | | AS<br>C | | | | | | | | | | | | AS | | | AS<br>C | | | | AS | | | | | | |
| Photography | AS | | | | AS<br>C | | | | | | | | | | | | | | | | | | | | | | | |
| Pilot Training | | AS | | | | | | | AS | | | | | AS | AS | | | AS | | | | | | | | | | |
| Plumbing | | | | C | | | C | | | | | C | | | | C | | | | | | | | | | | | |
| Police Science | AS<br>C | AS<br>C | AS<br>C | AS<br>C | AS | AS<br>C | AS<br>C | AS | AS<br>C | AS<br>C | AS<br>C | AS<br>C | AS<br>C | AS<br>C | AS | C | AS | AS<br>C | AS | AS | AS | AS<br>C | AS | AS<br>C | AS | AS<br>C | AS | AS<br>C |
| Printing | | | | | AS<br>C | | AS | | | | | | | | | | AS<br>C | | | | | | | | | | | |
| Postal Management | | | | | | | AS<br>C | | | AS<br>C | | | | | | | | | | | AS | | | | | | | |
| Quality Control | AS | | | | | | | | | | | | | | | | | | | | | AS<br>C | | | | | | |
| Radio/TV Repair | C | | C | C | | | C | | | | AS<br>C | C | | | | | | | | AS | | | | C | | | | |

SOURCE: AA-1

TABLE 12 OCCUPATIONAL PROGRAMS (Continued)

KEY:
AS - Associate in Science Degree
C - Certificate

| | Brevard | Broward | Central Florida | Chipola | Daytona Beach | Edison | Florida JC @ Jax. | Florida Keys | Gulf Coast | Hillsborough | Indian River | Lake City | Lake-Sumter | Manatee | Miami-Dade | North Florida | Okaloosa-Walton | Palm Beach | Pasco-Hernando | Pensacola | Polk | St. Johns River | St. Petersburg | Santa Fe | Seminole | South Florida | Tallahassee | Valencia |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TRADE AND INDUSTRIAL OCCUPATIONS Cont: | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reactor Technology | | | AS | | | | | | | | | | | | | | | | | | | | | | | | | |
| Recreation | | | | | AS | | | | | | | | | | AS | | | | | | | | AS | AS | | | | |
| Safety | | | | | | | | | | AS<br>C | | | | | C | | | | | | | | | | | | | |
| Service Station Operation | | | | | | | | | | | | | | | | C | | | | | | | | | | | | |
| Social Work | | C | | | | | | | | AS | | | | | AS | | | | | | AS | AS | | AS | AS | | | |
| Studio Art | | | | | | | | | | | | | | | | | | | | | | AS | | | | | | |
| Teacher Aid Technology | | AS<br>C | | | | | | | | | AS<br>C | | | AS | AS | | | AS | C | AS | AS | | AS<br>C | AS<br>C | | | | |
| Technical Writing | AS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Telephone Trades | | | | | | | | | | | | | | | | | | | | | | | | | C | | | |
| Theater | | | | | | | | | | | | | | | | | | | | | | AS | | | | | | |
| Tourism | | AS | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urban Planning/Administration | AS | | | | | | | | | | | | | AS | | | | | | | | | | | | | | |
| Watch Repair | | | | | C | | | | | | | | | | | | | | | | | | | | | | | |
| Water/Wastewater Control | | C | | | | | | | | C | | | | | C | | | AS | | | | | | | | | | |
| Welding | C | | C | C | C | | C | | | | AS | C | | | | | AS<br>C | | | AS<br>C | | | | C | | | | |
| X-Ray Engineering Technology | | | | | | | AS | | | | | | | | | | | | | | | | | | | | | |

Source: Report for Florida Community Colleges, 1978-79, Division of Community Colleges, April 1980.